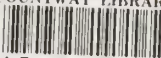
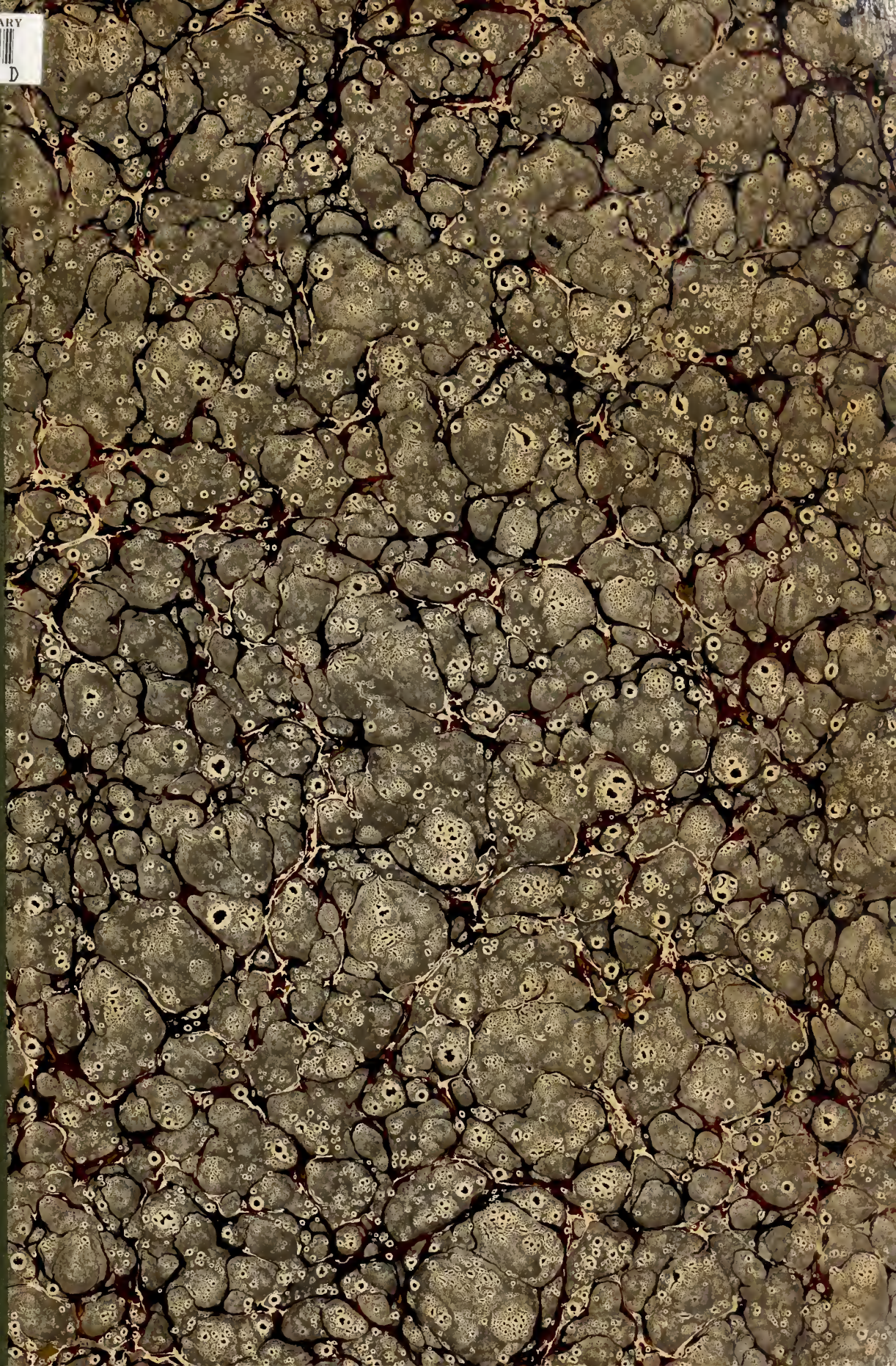



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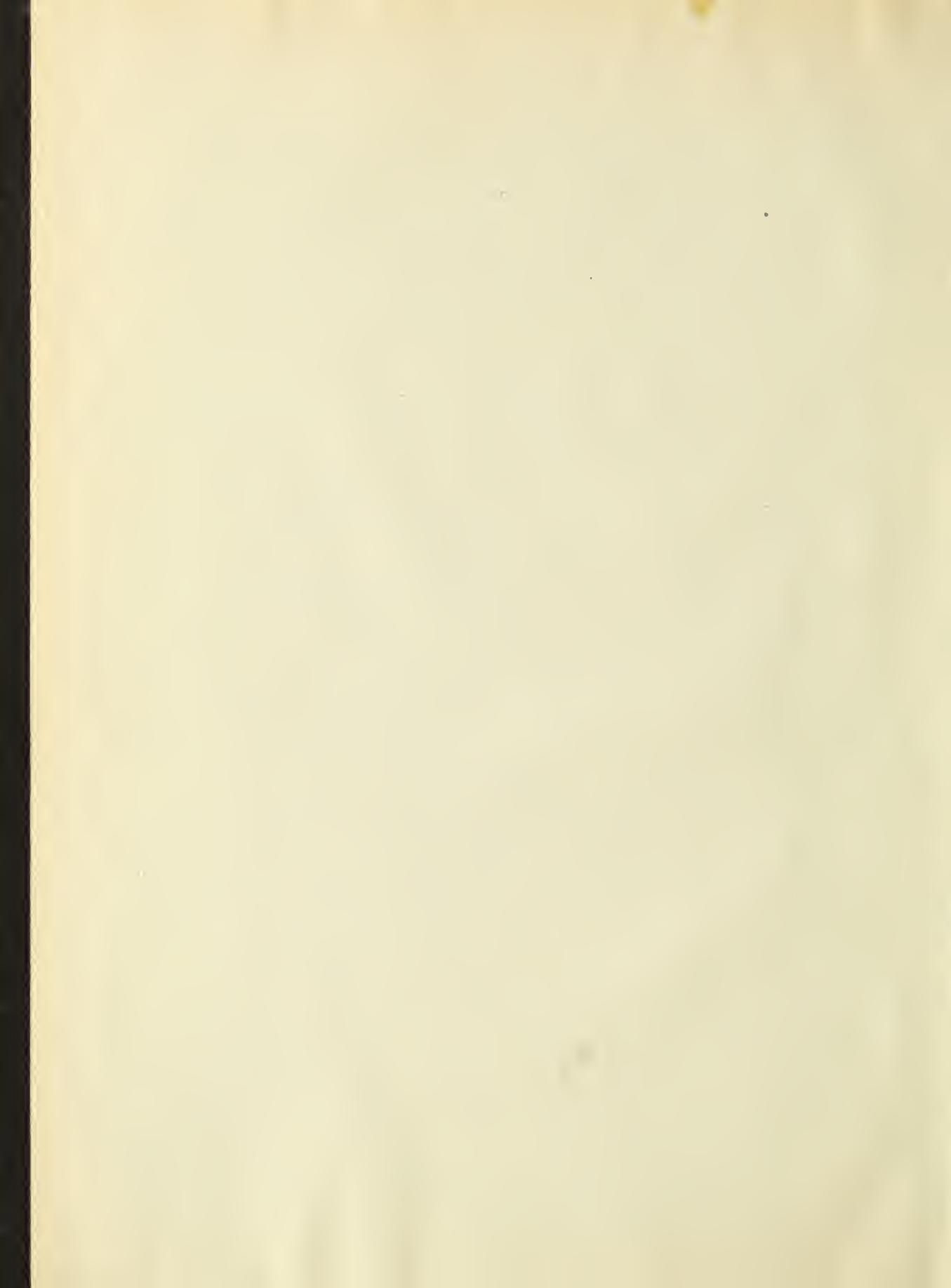


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THE JOURNAL

of the

South Carolina Medical Association

VOL. XXXIII.

GREENVILLE, S. C., JANUARY, 1937

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Old Way...CURING RICKETS in the CLEFT of an ASH TREE

FOR many centuries,—and apparently down to the present time, even in this country—ricketic children have been passed through a cleft ash tree to cure them of their rickets. Frazer* states that the ordinary mode of effecting the "cure" is to split a young ash sapling for a few feet and pass the child, naked, either three times or three times three through the fissure at sunrise. As soon as the ceremony is performed, the tree is bound tightly up and the fissure plastered over with mud or clay. The belief is that just as the cleft in the tree will be healed, so the child's body will be healed, but that if the rift in the tree remains open, the deformity in the child will remain, too.

*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923.

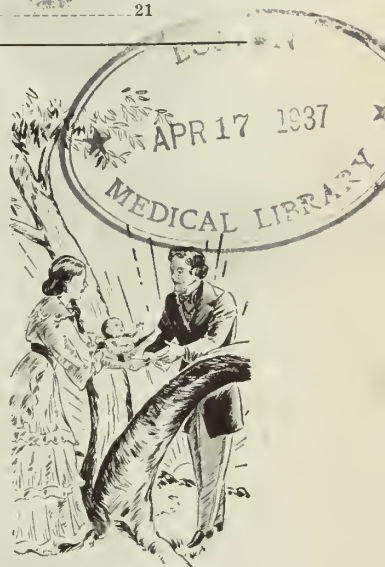
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THE JOURNAL

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VOLUME XXXIII

January, 1937

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THE OPPORTUNITY OF THE REFRACTIONIST

By

CLAY W. EVATT, M.D.,
Charleston, S. C.

By refraction I do not mean just the measurement of the dioptric apparatus but the complete and thorough examination of the eye from every point of view. Such an examination belongs in both the preventive and curative fields of medicine. In an audience of this kind where every specialty of medicine is represented and where the majority do general practice very few are interested in details of refraction technique or in the many theories of physiologic optics but every one is vitally interested in vision and the best ways to attain and maintain the greatest amount of comfortable vision. In fact whether fundamentalist or evolutionist we must admit that the first command was "Let there be light," and in the wake of light came vision.

There are ten thousand oculists and twenty two thousand registered optometrists in the United States. The optometrists fit about 60 per cent of the glasses, oculists 30 per cent and the department and chain stores the remaining 10 per cent. Surveys indicate that of the 70 per cent of adults needing glasses only 30 per cent have them, that the average interval between examinations is two to five years. In a recent British study H. B. Harman found that of ten thousand persons where refraction was studied 29 per cent had in addition to refractive errors, one or more other ocular conditions. He also found that of those referred, 6 per cent did not need glasses at all, so again we see how important it is that a thorough and com-

plete examination be made before glasses are prescribed.

To those with an ear for medical history it is interesting to note that two hundred years B. C. the ancient Greek philosophers made the first scientific efforts to study vision. One, Demianus of Ephesus explained light and vision as the same property of the human eye, and according to his theory the light rays emanated from the eye like tentacles, feeling the contour of the visible bodies. Hippocrates gave the first recorded description of the eye. He described three membranes and three ocular humors, yet while he saw the optic nerve it conveyed no meaning to him. Experiments continued and finally the German astronomer Johannes Kepler (1571-1630) found the correct explanation of the optical function and from this discovery has grown the knowledge of optics today.

The name spectacles is given to lenses of any required form which are supported in front of the eyes to assist vision. They may be used (1) to correct errors of refraction (2) to correct muscle imbalance (3) to cut off injurious or unpleasant light, glare, wind, water or other foreign substances (4) to unify the eikonic or sizometric conditions of the two eyes, i.e. the size and shape of the ocular images of the separate eyes; and lastly, (5) for esthetic reasons.

The first spectacles were made of quartz or rock crystal as it was called. Sir Roger Bacon in his *Opus Majus* in 1266 explained how to magnify writing by placing a segment of a sphere of glass plane side down on the book.

A portrait of Cardinal Ugone in a fresco in a church at Treviso painted in 1352 shows two mounted lenses with their handles riveted together and fixed in front of his eyes. So evidently a form of spectacles was known then.

On a tombstone of an Italian of the 13th century is this inscription, "Here lies Salvina Armato inventor of spectacles. May God pardon him his sins." The invention is also claimed to have been made by the Chinese in 1275.

It is of pride to us that Benjamin Franklin one of the greatest and most versatile of Americans about 1760 invented bifocals. Some say 1784.

Reverting to our major theme, that of examination, there is probably no condition more often than headache which causes the general man to refer his patients to the oculist and it is entirely true that eye strain is often an unsuspected cause of the headache even though the patient may have perfect vision. In this examination as in any other branch of medicine the sex, age, occupation and a carefully taken history often takes us far toward the solution of our case. The history should never be perfunctory. As far as possible the patient should be encouraged without leading questions, to tell the story. Whether his pain is present on waking or comes on with the use of the eyes may lead to the discovery that the primary cause of ocular disturbance is not in the eye itself but in the sinuses or some other focus of infection.

Having completed the history, the lids, conjunctivae, size and contour of the pupils, reaction to light and accommodation, muscle balance, rotations and tension is noted. Orthoptic therapy, that is, muscle exercises are now doing wonders to correct certain forms of muscle imbalances which would otherwise progress to prisms and operation. Recurrent styes, persistent blepharitis or conjunctivitis may be indicative of refractive errors. Iritis calls for a search for focal infection or more usually is associated with Syphilis, Rheumatism or some other systemic disease.

We now determine the patient's vision without, then with, glasses if he is already wearing them, and if he is wearing them just what his prescription is, so as to check against them when we have finished the refraction. Manifestly it would be foolish to give glasses or change those he already has unless we could give him better vision or promote his comfort thereby.

Then if the patient has not reached the age of presbyopia, in a dark room the eyes are retinoscoped. The phenomenon of retinoscopy,

skioscopy or of the shadow test as it is variously called, was first described seventy years ago by Sir William Paget Bowman. This test, when carefully done, gives us a close measure of the static refraction, but except in children too young for the subjective test we do not prescribe on this basis unless it coincides exactly with the final subjective findings. That is to say that after all, the court of final decision is not the objective findings but the subjective test with the trial lenses.

The refraction is done of each eye separately then together for distance, then near vision.

Having completed the refraction and with the pupils dilated an ophthalmoscopic study is made of the interior of the eye. Conditions of the cornea, lens, vitreous, retina, choroid, vessels and nerves, are studied. Here again we not only find conditions of the eye *per se* but in many instances look in on conditions that are part and parcel of diseases elsewhere in the body. This step may indicate whether or not a tangent field or perimeter study should be made.

No eye examination is complete without a slit lamp study. The slit lamp is as important in the study of the anterior eye as the ophthalmoscope is in the study of the interior eye; it is a microscope by which we actually examine the living tissue under great magnification.

We have not discharged our duty to the patient until we assure ourselves that the sinuses, ears, nose and throat are not effecting the vision. We must have the patient return with his glasses for a final check up to see that they do what we expect of them.

Every one wants to know whether he should wear his glasses constantly.

1. Lenses for the correction of astigmatism should be worn constantly to get the best results.

2. Near sighted people should wear their glasses all the time.

3. Young people with hyperopic and compound hyperopic errors will be uncomfortable unless they wear their glasses constantly (when they take their glasses off the return of tone of the ciliary muscle trying to compensate for the error of refraction, results in ciliary spasm or cramp, so that when the glass is resumed there is a temporary sense of fog.)

4. The only people who can put glasses on or off without discomfort are those whose muscles of accommodation are so relaxed that the accommodative power is insensitive to change.

To properly appreciate the eye we must not regard it simply as an organ of vision but visualize it as it really is, a very highly specialized extension of brain tissue with a third of the cranial nerves in whole or in part supplying it and its appendages; an open book revealing numerous conditions which effect our bodies and in the process effect our eyes.

Finally Dr. T. V. Holloway of Philadelphia said "Refractionists are made, not born, and only by study and practice." He also said that "one seldom finds a good refractionist who does not have a good practice" but regretted to say further that "there are still some good practices without a good refractionist."

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INDUSTRIAL HYGIENE ACTIVITIES IN SOUTH CAROLINA

By

HARRY F. WILSON, B.Sc., M.D., C.P.H.
*Industrial Hygienist, State Board of Health,
Columbia, S. C.*

Industrial Hygiene is a branch of preventive medicine that deals with the preservation of the health of industrial workers. Realizing the importance and desirability of accomplishing this fact, a division of industrial hygiene was organized last March and made possible by special provisions in the Social Security Act. This division will fill a gap in public health which

previously has been almost excluded from the program of official health agencies. A public health program which surrounds the babe unborn with premonitory protection, deals wisely and gently with infancy and childhood, and then allows the product of a reasonably healthy youth to be hurled into a working environment of blind chances of dusts, fumes, gases, and fatigues which wear down the stoutest body and cripple the most willing worker is certainly inadequate.

We know, from statistical studies, that the life expectancy of an industrial worker is several years less than the non-industrial worker. Also the incidence of tuberculosis, pneumonia, and the degenerative diseases is twice as great among industrial workers as compared to similar age groups of non-industrial workers. These excessive rates not only affect the industrial population but increase the rates of morbidity and mortality of the general population.

The prevention and control of occupational diseases is a function and responsibility of city, county, district, and state health agencies and should be included in their programs. Resolutions to this effect have been passed by the American Medical Association and the American Public Health Association. The control of health hazards in working environment constitutes a public health problem of the first magnitude. The majority of these hazards consist of exposure to materials and processes injurious to health. Excessive exposure to certain dusts with its resultant pneumoconiosis is recognized as the most serious of occupational diseases. This fact is clearly illustrated by the unfortunate happenings of the Gauley Bridge disaster where 475 workmen lost their lives and 1,500 were physically incapacitated for life on account of silicosis which is caused by the inhalation of silicon dioxide. These physical disabilities and untimely deaths could have been prevented by adequate dust control measures.

The census of 1930 shows that South Carolina had 146,344 persons engaged in manufacturing, mechanical and mineral industries. There are at present two large paper mills under construction and plans for considerable expansion in textile plants; with such a broad field of activity needing the application of the latest principles of occupational disease prevention, the division will provide a valuable health service.

Read before the four Public Health District meetings held in South Carolina during the month of November.

The division of industrial hygiene will render a technical advisory consultant service and will not act as a regulatory nor law enforcing agency. The general purpose will be the investigation of occupational hazards in industrial plants, combating industrial poisons, and improving environmental health factors in the hazardous occupations. Since the problem centers in the laboratory as well as the plants, the facilities of a chemical laboratory are available as an aid in the studies and investigations. The services of the chemical engineer and myself are available to industries and health agencies of the state which desire information and investigations of actual concentrations of dust, fumes, gases, and vapors from various processes, determining efficiency of dust control equipment, and recommendations in such topics as ventilation, illumination, sanitation and other phases of the workroom environment.

The following is a brief outline of the essential ways and means by which health departments can direct their activities in the interest of industrial hygiene:

Educational

1. Personal conferences.
2. Informal health talks.
3. Newspaper articles.
4. Technical lectures.
5. Scientific papers.
6. Distribution of literature.
7. Source of information for medical profession and various state agencies interested in industrial hygiene.

8. Health Posters relative to diet, personal cleanliness, accident prevention, etc.

Prevention of Occupational Diseases

1. Investigation of morbidity and mortality reports.
2. Consultant in the diagnosis of occupational diseases.
3. Personal protective measures.
4. Isolation of certain processes.
5. Plant designing.
6. Determine concentrations of harmful dusts, gases, vapors, and fumes within the workroom environment.
7. Chemical analysis to discover harmful ingredients.
8. Encourage substitution, if possible, of harmless for harmful compounds.

9. Dust counts to determine justification and efficiency of control measures.

10. Maintain temperature and relative humidity within comfort zones.

11. Pre-employment and periodical physical examinations.

12. Health certificates required of employees that have been sick with certain diseases before being allowed to return to work.

13. Sponsor the passage of rules and regulations for the prevention and control of diseases.

14. Technical studies.

Accident prevention

1. Safety placards.
2. Guards for moving machinery.
3. A full time safety director for large plants.
4. Encourage organizations of safety councils.
5. Accident prevention and first aid courses for employees.
6. Adequate fire escapes and fire control equipment.
7. Proper storage and handling of injurious chemical substances.

8. Safety devices and appliances.

9. Proper spacing for machinery and equipment.

10. Pre-employment and periodical physical examinations.

11. Physical examination of employees that have been sick or injured before being allowed to return to their work.

12. Proper clothing.

Sanitation

1. Adequate disposal of human excretae.
2. Safe water supply.
3. Sanitary drinking water facilities.
4. Adequate facilities for washing hands.
5. Shower facilities and personal lockers for employees in certain industries.
6. Lunchroom for employees that eat at plant.
7. Illumination.
8. Ventilation.
9. General cleanliness of plant.

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THE PREVENTION OF POSTOPERATIVE PULMONARY COMPLICATIONS

By

PORTER P. VINSON, M.D.,
Richmond, Virginia

One of the serious factors associated with operations, particularly those performed for diseases within the thorax and abdomen, is the development of pulmonary complications. The most dramatic complication is pulmonary embolism which, when it occurs, usually does so from the seventh to the fourteenth day after operation. Many procedures have been suggested for the prevention of embolism but very little has been accomplished in reducing its frequency.

Other postoperative lesions involving the respiratory tract usually occur immediately following operation and it seems that many of these could be avoided if certain precautions were observed. Although these complications are not so startling in their onset and termination as pulmonary embolism, they are serious and effort should be exerted to prevent their occurrence. The patient's preoperative condition must be disregarded in the treatment of many acute abdominal lesions, but much can be done to increase the safety of surgery and to reduce the incidence of pulmonary complications in patients with chronic lesions which do not demand immediate management.

Patients who are very much overweight are poor surgical risks, and respiratory difficulties after operation are particularly prone to develop in them. Judicious dieting with reduction in weight will lower the risk. The weight should be reduced gradually and the patient should be under the supervision of a physician. Thus, an adequate diet can be maintained and the patient will not become weakened by too rapid reduction in weight.

Operations should not be performed on patients who have acute colds unless the condition is one which requires emergency treatment. It is preferable to wait until acute respiratory infection has disappeared completely before surgery is undertaken.

Chronic respiratory conditions present a difficult problem and each case must be decided on its own merit, bearing in mind the fact that any pulmonary lesion, particularly tuberculosis,

bronchiectasis, asthmatic bronchitis, or emphysema, increases the risk of surgical procedures. The additional risk should be discussed frankly with the patient and the family before operation is performed. Operations on patients having pulmonary lesions should be done under local, spinal or intravenous anesthesia whenever possible. The use of ether should be avoided, especially in the patient with tuberculosis. Patients having bronchiectasis should be instructed in postural drainage and it should be carried out several times a day for at least a week before operation. They should be encouraged to cough after operation, and the position of the patient should be changed frequently in order to facilitate drainage from the bronchiectatic areas.

Preoperative cleansing of the mouth probably is not of much value in the prevention of pulmonary lesions. Surgical procedures such as the extraction of teeth, removal of tonsils or operations on the nose should be deferred until after major operations, and under no circumstances should operations on the nose and throat be carried out at the same time as abdominal operations. Multiple procedures should be discouraged and operations should not be prolonged since it is much better to subject a patient to two or more short, safe operations than to attempt to accomplish too much at one time. A frequent cause of pulmonary abscess in adults is the removal of tonsils or teeth under general anesthesia and, therefore, whenever possible, local anesthesia should be used for these operations.

Adequate protection of the patient should be provided during and after operation but serious consequences may follow too much heating of the body, particularly during warm weather. Loss of fluid by perspiration, actual increase of respiratory effort from too many blankets, and chilling of the body during necessary removal of this covering are undesirable factors which should be avoided.

The increased production of mucus in the mouth with aspiration during anesthesia is undoubtedly a major factor in the development of respiratory infections following operations, and much of this danger can be reduced by proper care. If all or the major portion of the mucus which accumulates in the tracheobronchial tree

could be removed before the patient leaves the operating table, pulmonary complications probably could be reduced to a marked degree. The mucus could be removed by aspiration through the bronchoscope without any discomfort to the anesthetized patient, and by delaying bronchoscopy until the cough reflex has been restored, hyperventilation of the lungs and thorough removal of secretion could be accomplished, which would provide protection against pulmonary atelectasis.

More consideration should be given to the question of bandaging in cases of operation on the thorax and upper portion of the abdomen. Operations on organs in this area are associated with local irritation and partial fixation of the diaphragm with consequent reduction in respiratory movements, and further reduction in breathing is produced by the usual large bandage which is supplemented by a heavy binder extending to the axillary regions. Both of these factors increase the incidence of pulmonary complications. The use of a loose, light-weight bandage will promote deeper breathing, reduce the tendency to retention of secretion in the air passages, and decrease the occurrence of pulmonary lesions.

When a patient is returned to bed from the operating room he should lie flat or have the foot of the bed elevated and he should be turned at frequent intervals. When he is propped up in bed there is further interference with pulmonary drainage.

Every physician desires to increase the comfort of his patient especially after operation, but the excessive use of sedatives is a dangerous practice. One should bear in mind that coughing and deep breathing are the greatest factors in the promotion of pulmonary drainage and when they are suppressed by sedatives, there is stagnation of pulmonary secretion with secondary bronchial occlusion and infection. The patient should be encouraged to cough and to breathe as deeply as possible after operation.

The routine administration of oxygen after operation is not only expensive but unnecessary in many instances. In some instances it actually may be detrimental as it may have a tendency to reduce the depth of respiration and invite stagnation of secretion in the lungs. The administration of carbon dioxide is of value in

reducing the incidence of pulmonary complications by increasing the depth of respirations, but if other factors which reduce respiratory movements are disregarded, the use of the gas will prove ineffective.

CONCLUSIONS

Postoperative pulmonary complications may be reduced by (1) recognizing certain predisposing factors which can be altered before operation is carried out, (2) avoiding the stagnation of secretion in the tracheobronchial tree, and (3) utilizing certain simple measures which will promote normal respiratory movements and increase drainage from the lungs.

MATERNAL AND CHILD HEALTH WORK IN SOUTH CAROLINA

By

R. W. BALL, M.D.,

*Director Maternal and Child Health Division, S. C.
State Board of Health,
Columbia, S. C.*

I. INTRODUCTION

During the past quarter of a century numerous developments have taken place in the field of Public Health. Many serious diseases have been controlled and some of them practically eliminated. We are all familiar with the almost complete stamping out of Smallpox in this State, the progress which has been made in reducing the incidence of Diphtheria, Typhoid Fever, Scarlet Fever, and the other infectious diseases. Through education in the essentials of diet pellagra in South Carolina has been reduced almost to a minimum. We have serums, vaccines, bactericides, bacteriophages, anti-toxins, and what not for specific prophylaxis and treatment of the various infections. We are still faced however, with a problem which has been in evidence for years but the significance of which has up to now possibly not been fully appreciated. This problem is the high maternal and infant mortality in South Carolina.

For the fiscal year 1936 we lost 343 mothers as a result of pregnancy and child birth and have to acknowledge also the loss of 3,034 babies during the first year of life. Our ma-

Read before the South Carolina Pediatric Society,
December 1, 1936, Columbia, S. C.

ternal death rate for 1936 is 8.71 per thousand live births and our infant death rate 77.04 per thousand live births. This does not compare favorably with the 1934 rates for the United States (later figures not available), which are as follows: Maternal death rate 5.9 per thou-

sand live births and infant death rate 55.8 per thousand live births.

The report of the State Committee on Maternal Welfare for 1935 shows the causes of Maternal Deaths among cases investigated to be as follows:

Table I.

<i>Cause of Death</i>	<i>Total No.</i>	<i>Per Cent %</i>	<i>No.</i>	<i>White %</i>	<i>No.</i>	<i>Colored %</i>
All causes -----	267	100	93	100	174	100
Albuminuria & Eclampsia -----	103	38.5	40	43.0	63	36.2
Septicemia -----	56	20.9	23	24.8	33	19.5
Hemorrhage -----	44	16.4	10	10.0	34	19.5
Abortion, Sepsis -----	22	8.2	8	8.3	14	8.6
Abortion, Hemorrhage -----	7	2.6	2	2.0	5	.2
Accidents of Labor -----	7	2.6	0	0.0	7	4.5
Embolus & Sudden Death -----	4	1.5	2	2.1	2	1.0
Vomiting of Pregnancy -----	2	.7	2	2.1	0	.0
Ectopic Gestation -----	1	1.3	1	1.0	0	.0
Non-obstetrical -----	21	7.8	5	5.0	16	9.7

Of particular interest is that 38.5 per cent of these maternal deaths were due to Albuminuria and Eclampsia and another 20.9 per cent were due to septicemia. The former emphasizes the need for pre-natal care and the latter

suggests the need for more aseptic technique.

Causes of infant deaths (under one year of age) as reported by the Bureau of Vital Statistics for the calendar year 1934 (later figures not available) are as follows:

TABLE II.

<i>Cause of Death</i>	<i>Total Deaths</i>	<i>White</i>	<i>Colored</i>
All causes -----	3,674	1,471	2,203
Prematurity -----	680	376	314
Infectious & Parasitic -----	618	214	404
Dis. of Digestive System -----	417	190	227
Birth Injuries -----	110	74	36
Congenital debility -----	76	35	41
Congenital malformations -----	96	76	20
Others -----			

It is to be noted that "Prematurity" heads the list and bears out the above-mentioned need for pre-natal care. It is also safe to state that the majority of the deaths from other causes here listed could, without exaggeration, be classed as preventable.

II. THE STATE PLAN FOR MATERNAL AND CHILD HEALTH SERVICES

1. Organization and objectives.

The present Maternal and Child Health Division of the State Board of Health was set up under the Social Security Act and replaces an organization formerly known as the Bureau of

Child Hygiene. Briefly, the Administrative set-up consists of Director, office personnel, and a corps of nurses who are executing their field duties through the County Health Departments and under the County Health Officers. It has as its primary objectives the lowering of maternal and infant death rates in the State and the betterment of maternal and child health.

2. Activities.

(a) *Clinics*: the major activity of the MCH Division at the present time is the organization of maternal and child health centers as diagnostic clinics in the various counties of the State. These clinics are in no way intended to replace any pre-existing clinics but to expand this type

of service over the whole State. The establishment of numerous clinics, in addition to rendering a direct service serves as an educational factor in teaching the essentials and significance of prenatal and infant care to the layman. The clinics also tend to make the layman "doctor-conscious" as it is one aim of the clinics to get patients under the care of physicians. Finally, such clinics stimulate general health work in all the counties.

(b) *Medical Participation*: In organizing the clinics over the State the medical profession was first considered. The clinics have all been started by specialists in Pediatrics and Obstetrics with the intention of having them subsequently taken over by local practitioners. All doctors participating in the program are compensated on a fee per clinic basis. With such a procedure the doctors over the State are thus afforded in the field the same clinic opportunities with remuneration as are given by O. P. D. hospital clinics without remuneration. These clinics not only benefit the patient but also furnish the practitioner with valuable and varied experience.

(c) *Biologicals and Drugs*: Provision is made for furnishing free Diphtheria Toxoid to all indigent children. Intensive toxoid campaigns should materially reduce the incidence of Diphtheria and incidentally reduce the State's financial burden of furnishing free antitoxin in the treatment of diphtheria. Provision is also made for supplying a limited amount of Neosphenamine and distilled water free to indigent syphilitic pregnant women, with a view to lowering the infant death rate and in the hope that the number of newborn syphilitics will be reduced.

(d) *Dental*: A full time dentist is now connected with the Division and is engaged in organizing an educational program of dental health and oral hygiene.

III. MAJOR PROBLEMS ENCOUNTERED

(1) Considerable difficulty has been experienced in getting the local practitioners interested in attending and carrying on clinics, only about one third of the clinics having been attended from May 1st to October 31st. In some of the counties clinics have been taken over by the local Health Officer due to lack of interest on the part of the local practitioners.

(2) Getting local doctors to treat abnormalities found at the clinics. It is felt that the treatment of abnormal physical conditions in all patients regardless of financial status should be the responsibility of the local physician. If the local physicians however, are not willing to assume this responsibility then the treatment of such indigent cases will sooner or later become the responsibility of the State. Should this occur the question arises as to whether such treatment can or will be limited to indigent cases. There are, of course, numerous administrative problems also which need not be described here.

On the following pages are presented tabulated summaries of clinic findings, which serve in a measure as an index to the health of children and pregnant women in their respective communities:

COMMENTS

1. Our maternal and infant death rates in South Carolina are far in excess of the corresponding rates for the United States. This constitutes a major public health problem and has been recognized to the extent that, through Federal subsidy a new division has been added to the State Board of Health. This Division is now actively engaged in an intensive program directed toward reducing maternal and infant mortality rates at least to the level of those for the United States.

2. In regard to diagnostic prenatal and well-baby clinics, which constitute a major activity of the Maternal and Child Health program, only a rather mild interest has been manifested by local physicians, less than one-third of the clinics having been attended by them.

3. *Prenatal Clinics.*

A. About 10 per cent of the patients had hypertension, and about the same number had Albuminuria. Official tabulations show the chief causes of maternal deaths in South Carolina to be Albuminuria, Eclampsia, and Septicemia. This emphasizes the need for adequate prenatal care and more aseptic technique before, during, and after delivery.

B. Of the 774 G. C. smears 12 per cent were positive for the gonococcus, which should justify this as a routine procedure.

C. Of 947 Wassermanns 22 per cent were

TABLE III.—ANALYSIS OF CLINIC SUMMARY (6 Months, May-October)

I. *Salient Facts and Findings—*

1. Statistical Data

	<i>Prenatal</i>	<i>Well-baby</i>	<i>Total</i>
Total number of clinics -----	177	162	339
Total number of patients attending (exam.) ----	1,135	2,052	3,187
Total number of patients, White -----	319	1,142	1,461
Total number of patients, Colored -----	816	910	1,726
Average number patients per clinic -----	6.4	12.6	9.4
Ratio of colored to white patients -----	2.56/1	1/1.25	
Number with Drs. engaged for delivery -----			203
Number with Mdw. engaged for delivery -----			690
Number without arrangements for delivery ----			242
Percentage with Drs. for delivery -----			17.9%
<i>Interesting Findings—</i>			
Hypertension -----	164		
Albuminuria -----	135		
Glycosuria -----	8		
G. C. Smears -----	774		
G. C. Positive -----	93		
Percent Positive G. C. -----	12%		
Wassermanns taken -----	947		
Number positive Wassermann -----	207		
Percent positive Wassermann -----	22%		
Bleeding -----	21		
Pelvic Disproportion -----	22		
Faulty presentation or position -----	17		
Dental Caries -----	408		
Percentage of patients with Dental Caries ----	36%		
Other abnormalities -----	1,015		
Malnutrition & Underweight (10%) -----		599	
Skin -----		418	
Ears -----		65	
Teeth -----		205	
Throat -----		512	
Abdomen -----		348	
External genitals -----		523	
Evidence of Rickets -----		483	
Evidence of Lues -----		89	
Total number of clinics -----	177	162	339
Number clinics held by specialists -----	121	115	236
Number clinics attended by non-specialists ----	63	52	115
Number non-specialists attending clinics -----	105	79	184
Number clinics held by non-specialists -----	64	47	111

COST—339 clinics cost \$4,865.70 which averages \$14.35 per clinic.

6.4 prenatals per clinic cost \$14.35 making investment of \$2.24 per patient.

12.6 children per clinic cost \$14.35 making investment of \$1.12 per patient.

This is only for clinic fees and travel. Does not include salaries of personnel, equipment, or incidentals.

positive. While the sample is not large it should be a fair index to incidence of syphilis among the indigent class. At this point it may be of some significance to recall that among the causes of infant deaths given for the year

1934 there were 680 from prematurity, and 76 from congenital debility, and that many of these were probably of syphilitic origin.

D. Bleeding, pelvic disproportion, and faulty presentation of position, while in the minority,

nevertheless do occur and should justify examination for them.

E. Only 36 per cent of prenatals were reported to have dental caries. Such a low figure does not coincide with the experience of the writer. More careful examination of the teeth would probably reveal a much higher incidence of caries, and unquestionably many foci of infection from unrevealed abscesses.

4. *Well-baby Clinics:*

A. Over 25 per cent of the patients were malnourished or underweight and approximately the same number showed signs of Rickets. This brings up the question of whether or not clinic physicians should not write formulas and prescribe diets for it is probable that many of the children attending the clinics will never reach the offices of private physicians.

B. Abnormalities of skin, throat, and external genitals were each present in about 25 per cent of cases. This is merely informative to

show the frequency of occurrence.

C. Abdominal abnormalities numbered 348 (17 per cent). Presumably some of these were umbilical hernias, and probably some of them were due to rickets. The total, however, does appear to be high.

D. Abnormalities of the ear were present in 65 so-called "Well-babies" and should warrant use of the otoscope routinely.

In conclusion the writer wishes to express to those pediatricians, obstetricians, and local physicians participating in the program his deep appreciation of their cooperation. Let us bear in mind, however, that the events of the past few months are only a beginning. The problem is still before us and it is only by constant and untiring effort on the part of the medical profession, the representatives of the various health organizations, and the lay public that we may expect any appreciable decline in the mortality and morbidity among the children and expectant mothers in this State.

SOUTH CAROLINA PEDIATRIC SOCIETY

The South Carolina Pediatric Society met at Columbia, S. C., December 1, with Dr. L. B. Salters, Florence, S. C., the President presiding.

Dr. Charles Armstrong of the United States Public Health Service, spoke on "The Prevention of Anterior Poliomyelitis" and Dr. James A. Hayne, State Health Officer, urged the Society to cooperate with the Health Department in eliminating social diseases in children. Dr. R. W. Ball, Director, Division of Maternal and Child Health of the State Board of Health read a paper on "Maternal and Child Health Work in South Carolina."

The following officers were elected to serve for the ensuing year, Dr. William Weston, Jr., Columbia, S. C.; Dr. R. W. Ball, Vice-President, Columbia, S. C.; Dr. D. Lesesne Smith, Jr., reelected Secretary-Treasurer, Spartanburg, S. C. The Society named a committee composed of Dr. Weston of Columbia; Dr. Smith of Spartanburg and Dr. R. N. Pollitzer

of Greenville to work with the State Health Department in eliminating social diseases in children in South Carolina.

THIRD DISTRICT MEDICAL MEETING

Dr. B. O. Whitten, Supt. of the State Training School at Clinton, was elected President of the Third District Medical Society at its meeting, Greenwood, S. C., November 13. Dr. J. B. Workman, Ware Shoals, was elected Vice President and Dr. F. S. Chance, Clinton, Secretary.

Retiring officers were Dr. C. H. Blake, President; Dr. J. D. Harrison, Vice President and Dr. W. G. Bishop, Greenwood, Secretary. The next meeting will be held at the State Training School next October.

Dr. Blake presided over the sessions held at the Oregon Hotel and papers were read by Dr. R. C. Bruce, President of the South Carolina Medical Association, Drs. A. T. Moore, T. A. Pitts and L. E. Madden of Columbia and Drs. C. J. Scurry and W. P. Turner of Greenwood.

THE JOURNAL

OF THE

South Carolina Medical Association

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JANUARY, 1937

THE NEW YEAR AND THE ASSOCIATION

All our members are now looking forward to the meeting of the State Medical Association in Columbia, April 13, 14, 15, 1937. The president, Dr. R. C. Bruce of Greenville, has invited two of the most outstanding physicians in America to be our guest speakers. One of them, Dr. Morris Fishbein, is the Editor of the

Journal of the American Medical Association, generally acknowledged to be the greatest medical journal in the world. Dr. Fishbein will speak at an evening meeting to which the public will be invited and on some important phase of the health of the people of South Carolina. This meeting alone should attract several thousand of our citizens. The other guest speaker is Dr. A. B. Cannon, Associate Professor of Dermatology, Columbia University, New York. We are assured that Dr. Cannon will discuss some vital problem uppermost in the minds of medical men at the present time. The Association has only once before been favored by the presence of a specialist in Dermatology as a guest speaker, and that was the visit of Dr. Pusey, President of the American Medical Association, when we met at Orangeburg.

The scientific program is already attracting attention from our members, and several titles of interesting papers have been submitted. The Scientific Committee appointed by the President is as follows: Dr. O. B. Mayer, Chairman, Dr. C. F. Williams, and Dr. W. J. Bristow, all of Columbia. The President and Secretary of the Association are Ex-officio members. Titles of proposed papers may now be sent to either Dr. Mayer or the Secretary of the Association. The program as usual will be limited to fifteen or twenty papers.

The scientific exhibits have been of increasing significance in recent years, and efforts have been made to coordinate them with the scientific papers as is done by the A. M. A. The commercial exhibits also are of growing interest to all our members.

The social features of any meeting at the State Capital always receive marked consideration. The Women's Auxiliary to the State Medical Association is now a splendid organization, and the Columbia Auxiliary will have a large part in making the whole program a great success.

For many years organized medicine has been deeply concerned with economic problems. With the return of more prosperous times the physician has shared in them, but the economic problems have by no means been all solved for him. The standing committee on Medical Economics will have a report of progress along this line,

but conditions do not appear to be so acute as in previous years.

The House of Delegates will meet as usual before the scientific session, but it is hoped a little longer time may be given for deliberations than the usual night sessions.

The year just closed was a successful one for the Association and the Journal. The membership increased in numbers. Dues were paid more promptly, and there were fewer delinquent members. The Journal enjoyed an increased income from high class advertising and was thus enabled to enlarge the scientific section. There is every promise that these conditions will continue and even be improved upon in 1937.

SECTIONAL MEETING AMERICAN COLLEGE OF
SURGEONS, ATLANTA, GEORGIA,
FEBRUARY 3, 4, 5, 1937

One of the most dynamic sectional meetings of the Country is that of the College of Surgeons. Dr. J. Sumter Rhame, Associate Professor of Surgery at the Medical College of the State of South Carolina, is the Chairman of the South Carolina State Executive Committee of the American College of Surgeons. Dr. Rhame has just returned from Atlanta, where plans have been consummated for the meeting there of the surgeons from North Carolina, South Carolina, Florida, Tennessee, Alabama, Mississippi, Louisiana, and Georgia. An announcement of the program is published elsewhere in this issue. The opportunity is an unusual one for the attendance of a large number of South Carolina surgeons.

THE LEGISLATURE

We are always profoundly concerned about legislation affecting the public in our State. One of the most important matters in this regard is the continued support of our State Medical College with increased appropriations in order that our medical school be kept up to its high standard of service to the people. The Legislature has been generous to the State Board of Health, and it is expected that this liberality will continue in 1937. By and large the medical profession of South Carolina secures most of the legislation asked for, and that means a great

deal in any future plans along this line. The family physician continues to hold a very definite place in the estimation of the average member of the Legislature; and when he undertakes to explain the good or evil of legislation about to be enacted in the interest of the health of the people, the legislator is very apt to listen with sympathetic interest. This privilege should be encouraged on the part of the profession.

SOUTHERN MEDICAL CALLS PRESIDENTS AND
PRESIDENTS-ELECT TOGETHER

At the time of the meeting of the Southern Medical Association in Baltimore, there was held at the suggestion of Dr. H. F. Garrison, of Mississippi, a meeting of the Presidents and Presidents-elect of the State Medical Associations which are included in the territory of the Southern Medical Association. This meeting was well attended, and was held following a special dinner given by the Southern Medical Association at the Lord Baltimore Hotel. South Carolina was represented by Dr. J. I. Waring and Dr. Thomas Pitts, who acted for our President, Dr. R. C. Bruce, and our President-elect, Dr. Julius Taylor, respectively, both of whom were unable to attend.

The object of this meeting was to discuss the problems which concern the State Medical Associations and their members. The following subjects were discussed at some length:

"The Effect of the Social Security Act on the Practice of Medicine in the South." By Dr. C. E. Waller, Washington, D. C.

"The Work of the Medical-Dental Service Bureau in Baltimore." By Dr. Fredrick D. Chappellear, Baltimore, Maryland.

"The Probable Effect of Hospital Insurance on the Practice of Medicine in the South." By Dr. Seale Harris, Birmingham, Alabama.

"The Best Means of Increasing Membership and Enthusiasm of a State Medical Association." By Dr. E. H. Cary, Dallas, Texas.

"The Value of Medical Organization." By Dr. Felix J. Underwood, Jackson, Mississippi.

While no formal resolutions were passed, many points were brought out which will lead to future action. The meeting was enthusiastic, and it was decided that a similar meeting be held each year.

J.I.W.

ANNOUNCEMENT

SECTIONAL MEETING OF AMERICAN COLLEGE OF SURGEONS, ATLANTA, GEORGIA, FEBRUARY 3, 4, 5, 1937

During 1937 the American College of Surgeons is planning a Sectional Meeting to be held in Atlanta, Georgia, on February 3, 4, and 5. Headquarters will be at the Atlanta Biltmore Hotel, and the following states will participate:

Georgia, Florida, North Carolina, South Carolina, Tennessee, Alabama, Mississippi, Louisiana

An active Committee on Local Arrangements has plans in hand for a most interesting meeting. Dr. James Campbell is chairman, and Dr. D. Henry Poer is secretary of the Committee on Local Arrangements.

A general outline of the program is as follows:

Wednesday, February 3

8:00-9:00 Registration and general information for Fellows of the College, hospital representatives, and guests.

8:00-9:00 Inspection of technical and scientific exhibits.

9:00-12:00 Operative and non-operative clinics at local hospitals, surgery and the surgical specialties.

10:00-12:00 Hospital conference.

12:00-2:00 Inspection of technical and scientific exhibits.

2:00-4:00 Medical motion pictures:

1. General surgery.

2. Eye, ear, nose and throat surgery.

2:00-4:30 Hospital conference.

4:30-5:00 Annual meeting, Fellows of the College.

5:00-6:30 Inspection of technical and scientific exhibits.

7:00-8:00 Medical motion pictures:

1. General surgery.

2. Eye, ear, nose and throat surgery.

8:00-10:00 Scientific meeting, general surgery.

8:00-10:00 Scientific meeting, eye, ear, nose and throat surgery.

8:00-10:00 Hospital round table conference.

Thursday, February 4

8:00-9:00 Registration and general information for Fellows of the College, hospital representatives, and guests.

8:00-9:00 Inspection of technical and scientific exhibits.

9:00-12:00 Operative and non-operative clinics at local hospitals, surgery and the surgical specialties.

9:30-12:00 Hospital conference, panel round table.

12:00-2:00 Inspection of technical and scientific exhibits.

2:00-4:00 Hospital conference.

2:00-5:00 Scientific meeting, general surgery.

2:00-5:00 Scientific meeting, eye, ear, nose and throat surgery.

5:00-6:00 Inspection of technical and scientific exhibits.

7:00-10:00 Medical motion pictures:

1. General surgery and eye, ear, nose and throat surgery.

8:00-10:00 Community Health Meeting.

Friday, February 5

8:00-9:00 Registration and general information for Fellows of the College, hospital representatives, and guests.

8:00-9:00 Inspection of technical and scientific exhibits.

9:00-12:00 Special clinics at local hospitals:

(a) Cancer.

(b) Fractures.

(c) Eye, ear, nose and throat.

9:30-12:00 Hospital conference, panel round table.

12:00-1:30 Inspection of technical and scientific exhibits.

1:30-2:30 Medical motion pictures:

1. General surgery.

2. Eye, ear, nose and throat surgery.

2:00-4:30 Hospital conference, demonstration.

2:30-5:00 Scientific meeting, general surgery.

2:30-5:00 Scientific meeting, eye, ear, nose and throat surgery.

This meeting will be of interest not only to

Fellows of the College but to the medical profession at large, and in addition, hospital trustees, superintendents, nurses, and other hospi-

tal departmental personnel are invited to attend the hospital conference.

There will be no registration fee.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"ESTABLISHMENT OF BLOOD SUPPLY TO THE HEART BY OPERATION"

It would be remiss if this column did not give some consideration to the work of Dr. Claude Beck of Cleveland on establishing a new blood supply to the heart by operation. (*Journal of Thoracic Surgery* 5:600 Aug. '36). The problem is too involved to permit of a detailed treatment, however a general consideration is in order. The new blood supply is derived from the left pectoralis major muscle and is transmitted through adhesions established between this muscle and the heart. The operation has gone through various stages of development. At present it consists in resecting portions of two or three costal cartilages, severing the lower portion of the left pectoralis major muscle, opening the pericardium and placing the proximal end of the severed muscle adjacent to the heart over the surface of which has been spread some powdered bone for the purpose of stimulating adhesion formation. No sutures are placed in the heart; the muscle graft is anchored to the parietal pericardium; the wound is closed by suturing the subcutaneous tissue and skin.

As with all sound work of this kind, it was first carried out experimentally on animals, and this phase is still kept ahead of the clinical application wherever possible. It is the common opinion that adhesions interfere with the function of the heart and the question naturally arose whether that would obtain in this case. With this in mind Dr. R. M. Hosler and Dr. J. E. Williams produced cardio-pericardial adhesions in dogs and reviewed the autopsy records of the University Hospitals of Cleveland from 1905 to 1935. (*Journal of Thoracic Surgery* 5:629 August '36). They reached the conclusion that adhesions per se do not cause circulatory em-

barrassment unless they are extensive enough to cause cardiac compression angulation or torsion. In all cases in which there was cardiac hypertrophy there was some other cause to account for it satisfactorily. Accordingly they are of the opinion that cardiac adhesions have been overemphasized in the past.

Another associated problem is the irritability of the heart while being worked upon. Various arrhythmias develop—auricular and ventricular extrasystoles, and auricular and ventricular fibrillation, tachycardias, and heart block. Some of these are serious disturbances, at times resulting in death. Means of preventing them is the subject of an investigation of Dr. F. M. Mantz (*Journal of Thoracic Surgery* 5:612 Aug. '36). Systemically, preoperative administration of quinidine has been proven effective as a preventative measure. During operation, the cautious intra-pericardial injection of procain is of some value. Both of these drugs are toxic if given in excess. Their dosage and real value can be determined only after further observation in human cases. Adrenalin has its place, but in excess it causes ventricular fibrillation resulting in death.

Dr. Beck reports 11 cases in brief, 6 living and 5 dead. In five patients there is sufficient evidence that the operation has had a very beneficial effect. The causes of death were mostly cardiac complications.

The experiments brought out the fact that not only is an adequate supply of blood necessary, but that its distribution must be proper in order for satisfactory cardiac function. In addition to giving a new supply of blood, the adhesions assist in its distribution by supplying a collateral bed. The new blood supply becomes established only where the heart is in need of it.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE
STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT No. 323 (30313)

October 23, 1936

Case of Dr. Cannon

Student Corcoran (reading):

A 64 year old negro man, laborer, admitted 12-4-35, died 12-5-35.

History: Patient states that he was well until August 1935, when he suddenly lost about 3 quarts of "blood" from the rectum. No subsequent bleeding, but the patient has grown progressively weaker. Swelling of the abdomen and of the feet became apparent shortly after this. No abdominal pain. Has had mild dyspnoea for seven months, but no orthopnoea, cough or cardiac pain. Whenever dyspnoea has been present there has been some discomfort about the heart but no actual pain. No intestinal symptoms other than the "bleeding." Previous histories irrelevant. Luetic infection neither denied or admitted. Believes he has lost weight during his present illness.

Examination: Temp. 98.6, pulse 100, resp. 32, B.P. 160/80. Skin dry, mucous membranes pale. Pupils react to light and in accommodation. Teeth carious. Lymph glands not palpable. Chest: expansion equal, dullness below the 6th thoracic vertebrae on both sides, with absent voice sounds; few rales in axillae. Sounds in upper chest normal. Heart: enlarged, apex beat 1 inch beyond nipple line, heart action rapid, regular; questionable systolic murmur at apex. Abdomen: "distended with fluid. Liver not palpated because of fluid and tenderness. No masses felt." Another examiner recorded: "Abdomen distended symmetrically, dull, liver tender." Rectal examination negative. Legs: edematous and somewhat ulcerated.

Lab.: Urine clear, Sp.gr. 1.018, albumin 2 plus, sugar and acetone neg., coarsely granular and finely granular casts 1 plus, leukocytes 4 plus, RBC 0. Blood: Hb. 70 per cent D; WBC 4,750; polys 85 per cent; lymphs 11 per cent; monos 4 per cent. Blood Kolmer and Kline negative. Blood sugar 83 mg. per cent, Urea N 11 mgs. per cent.

Course: Temperature rose to 99.4 during the afternoon of each day, falling to normal during night. Pulse progressively more rapid, 132 per minute just before death. Respirations 30-40. Abdominal tap done the day of admission and about 720 cc. of bloody fluid obtained. The patient was fairly comfortable the following morning. At 7 P.M. he became very weak, the heart sounds became of poor quality, the respirations labored, and he ceased to breathe at 8:10 P.M.

Dr. Cannon (conducting): Mr. Freed, will you open the discussion?

Student Freed: The patient gave a history of dyspnoea, discomfort about the heart, edema and swelling of the abdomen. The heart was enlarged, but the other cardiac findings were questionable. From the record I cannot tell whether the liver was enlarged or not, but I judge that it was. The history of rectal bleeding is certainly incorrect in amount.

The symptoms and the physical findings suggest chronic heart failure, the type not clear. There is no definite history of lues, and none of rheumatic infection. In one of this age I would suspect arteriosclerosis, with involvement of the coronary arteries and chronic myocardial degeneration, and with heart failure from that cause.

What is apparently a very significant finding in the record is the fact that the abdominal fluid was bloody. This suggests either abdominal carcinomatosis or tuberculous peritonitis. Carcinoma of the lower portion of the colon would give recognizable bleeding from the rectum; if the bleeding had been from higher up, the stool would have been tarry rather than red. The edema could be explained on the basis of a malignant tumor compressing the inferior vena cava. Against a carcinoma of the rectum and lower colon is the absence of tumefaction on rectal and abdominal examination, and the lack of intestinal symptoms such as constipation, diarrhoea and colicky pain.

The bloody abdominal fluid, the low-grade fever and the blood count suggest tuberculous peritonitis or possibly a tuberculosis of all the serous cavities.

My diagnosis is chronic myocardial degeneration from arteriosclerosis.

Dr. Cannon: Don't you think that the story of "mild dyspnoea," without orthopnoea and without cough, is quite unusual in chronic heart failure showing this much swelling of the feet and abdomen?

Student Freed: Yes, I think that is unusual. If the ascitic fluid had been examined chemically and microscopically, that would have been against heart failure, unless the tap itself caused a big help to us. That the tap was bloody is also against heart failure unless the tap itself caused the bleeding.

Dr. Cannon: The loss of blood is very difficult to correlate with the diagnosis of arteriosclerotic heart disease, isn't it? This would appear to be a very important symptom; can we possibly correlate it with the diagnosis?

Student Freed: There was apparently no subsequent bleeding, and there were no masses on rectal or abdominal examination. I cannot correlate that symptom, and would be rather inclined to discount it as incorrect, although it certainly does sound important.

Dr. Cannon: Incidentally, about how much blood can one lose and live?

Student Freed: It would depend on the rate of blood loss. If the loss were sudden, I don't believe that one could lose as much as three quarts of blood and still live.

Dr. Cannon: Mr. Halsey, can you add anything to the case?

Student Halsey: I am inclined to agree with what Mr. Freed has said. The bloody abdominal fluid is very suggestive of carcinoma, and to correlate that with the intestinal bleeding, the lesion must have been in the lower bowel. But I do not believe that malignant disease could have progressed so far as secondary deposits in the liver and abdomen without having given more local intestinal symptoms, particularly obstruction of the bowel. On this basis I am inclined to discount carcinomatosis and to lean towards heart failure, too.

Dr. Cannon: Do you think much of tuberculosis as a diagnosis?

Student Halsey: It is very hard to rule out tuberculous peritonitis, but the man's age is certainly against it. The hemoglobin would seem to be a bit high for fatal tuberculous disease, but the rest of the picture fits in well with tuberculous peritonitis.

Dr. Cannon: Doesn't this seem like a very large amount of abdominal fluid for a case of tuberculous peritonitis?

Student Halsey: Yes, and that is one of the things that makes me lean towards the diagnosis of heart failure. Portal cirrhosis might also have caused the ascitic accumulation. But the liver seems to have been enlarged and tender, and these suggest chronic passive congestion more.

Dr. Cannon: Do you agree or disagree, Mr. Long?

Student Long: I am inclined towards chronic myocardial failure, but I cannot see how tuberculous peritonitis can be ruled out. I think that carcinoma of the intestine must also be considered, but I believe that intestinal bleeding would have continued in carcinoma of the bowel, and that the anemia would have been more marked in the stages of the disease.

Dr. Cannon: How do you account for the intestinal bleeding in heart failure?

Student Long: A small blood vessel in the intestinal wall might have ruptured to cause the hemorrhage, the blood vessel being arteriosclerotic—comparable to a hemorrhage in the brain in arteriosclerosis. I cannot account for the bloody abdominal fluid except on a basis of trauma during the procedure.

Dr. Cannon: There is no report on the chart as to an examination of the fluid.

How do you account for the severe ascites and edema on a basis heart failure, when other cardiac symptoms are lacking?

Student Long: The record says that the patient had "mild dyspnoea;" I believe that dyspnoea which one patient calls "mild" might well be severe to another patient, and that it might also depend on how the examiner put the question and interpreted the answer.

Dr. Cannon: Does anyone else want to take a shot at the diagnosis?

Dr. Chamberlain: I expect that I would be wise not to comment on this case. I have been trying to get positive findings from the record

and I find them scarce. One is the passage of a large amount of blood from the rectum. This is obviously inaccurate as to quantity, and may not have been blood at all.

The swelling of the abdomen is about the only other definite symptom. The apparent enlargement of the heart may well have been a simple displacement of the heart by the upward displacement of the diaphragm. The dullness in the bases of the lungs and the rales there also indicate the rising of the diaphragm.

The distention of the abdomen by bloody fluid, and the bleeding from the rectum, make carcinoma of the bowel the most likely diagnosis, associated with abdominal and liver metastases.

Dr. Robert Wilson, Jr.: Most of you have approached this case as a cardiac case, and as far as I can see, the fact that the patient was on Dr. Cannon's service is about the only thing to suggest cardiac disease.

Bleeding from the rectum, swelling of the abdomen, and mild dyspnoea certainly are not strongly suggestive of heart failure. Will a cardiac diagnosis explain the findings in the lungs, heart and abdomen? Possibly the physical findings in the lungs, heart and abdomen could be explained on that basis, but hardly the symptoms. Therefore we will start again.

What else could explain the physical signs, but also explain the symptoms? Swelling of the abdomen could cause all the findings on the record—in lungs, heart and abdomen, as several have already pointed out. What sort of intra-abdominal disease could cause bloody ascitic fluid, and also rectal bleeding? Carcinoma of the bowel, and that seems to be the single diagnosis to most satisfactorily explain all the symptoms and physical findings.

Dr. Johnson: There is no record on the abstract as to the number of bowel movements or the presence of blood in them. That should certainly have been investigated.

Regarding the abdominal fluid: most bloody fluids in the abdomen are either associated with tuberculous peritonitis or with malignant disease. The former is a much more common cause. And I do not think the amount of fluid excessive for tuberculous peritonitis; sometimes the accumulation is quite large.

Dr. Robert Wilson, Sr.: One does not have to make a unit diagnosis always, although it is

a good rule to adhere to a unit diagnosis when one diagnosis can explain all the symptoms.

Here the outstanding symptom (or finding) was bloody ascitic fluid. What could give this? Abdominal carcinomatosis and tuberculous peritonitis are the two most likely causes of bloody abdominal fluid. The apparent rapidity with which the fluid accumulated is against both diagnoses, altho not incompatible with either. Considering the man's age and all the symptoms and findings, I believe that carcinomatosis is the most likely diagnosis. Heart disease with heart failure would not cause this picture. Tuberculous peritonitis could. There is not enough on the record to distinguish between the two, but I believe that malignant disease is the most likely with what we have at hand.

I am inclined to believe that the bleeding from the rectum was an error in the history as given to the examiner, for the reasons that have already been given. When we ourselves bleed, the amount seems enormous, and anyone is inclined to exaggerate this symptom. But if we must explain that symptom, I would be inclined to explain it on the basis of the rupture of an arteriosclerotic vessel in the wall of the intestine; I have seen such a thing give a single, massive hemorrhage. I would not explain that symptom on the basis of a carcinoma of the bowel willingly, because the bleeding would probably have continued, and the hemoglobin would have been lower.

Dr. Lynch (demonstrating autopsy specimens): I have to show you here a portion of the mesentery from the bowel; it is a mass of tubercles, and the process is much more active than is the case in the usual tuberculous peritonitis. In addition, and apparently the reason for death, there was an acute, generalized milary tuberculosis, even in the adrenal glands.

Tuberculous peritonitis explains the main features of the picture which the patient presented. This diagnosis was put second to abdominal carcinomatosis by most of you because of the age, and I think that reasoning was quite logical. On the basis of the main symptom, it could have been either.

The oldest tuberculous lesion in this case, found at autopsy, was in one of the peribronchial lymph nodes. Probably the real original lesion was in the lung, and eroded a blood vessel

to give the wide-spread dissemination; subsequently this lesion must have healed, because it could not be found at autopsy. Of course a tuberculous lesion of the bowel may have been the original focus, but there was no evidence of disease of the intestine at the time of autopsy.

There was no finding at autopsy to explain an intestinal hemorrhage. If bleeding did occur, it must have been on a basis of arteriosclerosis; there was a marked atherosclerosis of the lower portion of the aorta.

There was slight sclerosis of the coronary arteries, but no real evidence of heart disease that might have caused heart failure. The heart was only slightly if at all enlarged.

With reference to the abdominal fluid; seldom do I see such a large accumulation of ascitic fluid in congestive heart failure, and certainly it should not be bloody. Bloody abdominal fluid is common in a case of active tuberculous peritonitis, and, of course, in carcinomatosis of the abdomen.

SOCIETY REPORTS

SOUTH CAROLINA UROLOGICAL ASSOCIATION

The Urological Association of South Carolina held its annual meeting December 1936 in Columbia, S. C. with Dr. James E. Boone, Columbia, S. C. the President, presiding. The Scientific Program was as follows:

The Importance of pH Control—Dr. James E. Boone, Columbia, S. C.

Some Urological Problems in Children with Case Reports—Dr. W. B. Lyles, Spartanburg, S. C.

The Technique of Prostatic Resection with Motion Pictures of Modern Resection—Dr. T. M. Davis, Greenville, S. C.

Syphilis—Dr. J. McMahan Davis, Columbia, S. C.

The Ketogenic Diet in Renal Infection—Dr. J. J. Ravenel, Charleston, S. C.

At the banquet held in the Crystal Room of the Hotel Columbia, Dr. Leon Herman, Professor of Urology at Pennsylvania Hospital gave an illustrated lecture on Kidney Tumors. The discussion was led by Dr. Baird Stuart, Carlisle, Pennsylvania.

During the business session Dr. W. B. Lyles of Spartanburg was elected President; Dr. E. E. Herlong of Rock Hill, Vice-President; and Dr. Mordecai Nachman of Greenville, Secretary-Treasurer.

FOURTH DISTRICT MEDICAL SOCIETY

The Fourth District Medical Society held its 30th annual session at the John C. Calhoun Hotel in Anderson on Tuesday, November 24, at 4 o'clock. The Scientific program for the meeting was as follows:

Actinomycosis—Dr. Henry Y. Harper, Anderson, S. C.

The Time Factor in Peritonitis—Dr. Roger C. Dougherty, Columbia, S. C.

The Occiput, An Obstetrical Problem (with lantern slides)—Dr. J. D. Guess, Greenville, S. C.

Movie of Prostatic Resection Operations—T. M. Davis, Charlotte, N. C., and Greenville, S. C.

After the Scientific session a banquet was held at the John C. Calhoun Hotel during which time the members of the Society were addressed by Dr. R. C. Bruce, President of the State Medical Association on Medical Economics. A musical entertainment by some of the students of Anderson College was an added attraction at this time.

During the business session the following officers were elected: Dr. C. H. Young, President, Anderson, S. C.; Dr. Lee W. Milford, Vice-President, Clemson College, S. C. and Dr. George Wilkinson, reelected Secretary-Treasurer, Greenville, S. C. The next annual session will be held at Seneca, S. C., November 1937.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

ADVISORY COUNCIL

Dr. E. A. Hines	Seneca, S. C.
Dr. George Bunch	Columbia, S. C.
Dr. W. B. Ward	Rock Hill, S. C.
Dr. Roderick MacDonald	Rock Hill, S. C.

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Second Vice President, Mrs. C. C. Ariail	Greenville, S. C.
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Mrs. W. L. Pressley	Due West, S. C.
Mrs. Henry Heintsh	Spartanburg, S. C.
Mrs. W. R. Blackmon	Rock Hill, S. C.
Mrs. Richard Baker	Sumter, S. C.

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Student Loan Fund, Mrs. L. O. Mauldin	Greenville, S. C.
Student Loan Fund, Co-Chairman, Mrs. C. P. Corn	Greenville, S. C.
Student Loan Fund, Treas., Mrs. Warren White	Greenville, S. C.
Jane Todd Crawford Mem., Mrs. Riddick Ackerman	Walterboro, S. C.
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Hygeia, Mrs. W. C. Abel	Columbia, S. C.
Historical, Mrs. H. M. Stuckey	Sumter, S. C.

WOMAN'S AUXILIARY TO THE SOUTHERN MEDICAL ASSOCIATION

Delegate's Report November 20, 1936

Your delegate submits the following Report of the Thirteenth Annual Meeting of the Woman's Auxiliary to the Southern Medical Association held in Baltimore, Maryland, November 17th to 20th, inclusive, 1936.

The opening meeting of the Convention was held at the Lyric Theatre on the evening of November 17th, with Dr. Sidney R. Miller of Baltimore, presiding. The program was, as follows:

"Heart Disease," by Dr. Jonathan C. Meakins, Professor of Medicine, McGill University Faculty of Medicine, Montreal, Canada.

"Syphilis, as a Public Health Problem," by Dr. Thomas Parran, Jr., Surgeon General, United States Public Health Service, Washington, D. C.

"The Role of Surgery and Hospital in Fighting Disease," by Dr. Irvin Abel, Clinical Professor of Surgery, University of Louisville School of Medicine, Louisville, Ky.

"Society's Debt to the Doctors," by Rev. Alphonse M. Schwitalla, S. J., Ph. D., Dean, St.

Louis University School of Medicine, St. Louis, Missouri.

Every citizen of Baltimore was invited to attend this meeting, which was called "The Laymen's Meeting." Several thousands were present to enjoy this program. The delightful music was furnished by the Johns Hopkins Orchestra, which was conducted by Mr. Bart Wirtz.

Wednesday morning at eight o'clock, Mrs. Oliver Hill, President of the Woman's Auxiliary to the Southern Medical Association, called the executive session of the Board at a Breakfast Meeting. The entire session was given over to the reading and adoption of the New Constitution and By-Laws. Article I of the By-Laws should be noted because the States will be no longer called upon for State dues. Article I reads, —

"There shall be no dues. The Southern Medical Association assuming the budget expense of the Auxiliary, not to exceed two hundred dollars, (\$200.00), annually; and, they will, also, print the proceedings of the Annual Meeting."

Our President, Mrs. T. R. W. Wilson, has served as Budget Chairman during Mrs. Oliver W. Hill's administration, and during the luncheon hour Mrs. Wilson submitted the Budget for 1936-1937, which was received and the recommendations were adopted.

When the Report of the Nominating Committee was read, South Carolina women were delighted that one of her past Presidents, Mrs. C. P. Corn, was elected Treasurer for 1937.

At ten o'clock a very interesting trip to Annapolis was planned for the visiting ladies. Many historic buildings were visited, after luncheon was served at Carvel Hall. After lunch, the Naval Academy was next visited. This was followed by full dress parade by Midshipmen.

Wednesday evening, the President's Reception and Ball was held at the Lord Baltimore Hotel. Everyone seemed to enjoy both immensely.

Thursday, November 19th, at nine o'clock,

the Meeting of the Women's Auxiliary opened with the President, Mrs. Oliver W. Hill, presiding. Invocation was offered by Rev. Guthrie Speers, Pastor of Brown Memorial Presbyterian Church. Address of Welcome by Mrs. Llewellys F. Barker, Chairman of the Convention. Mrs. Barker was most gracious and made everyone feel welcome. The response was given by Mrs. Joseph Baer of Richmond, Virginia. The Memorial was conducted in a most beautiful and impressive manner by Mrs. Prentiss Wilson of Washington, D. C. She made each one feel very keenly the significance of the Hour.

Mrs. Hill then called for reports of the Standing Committees. The Registration Committee reported 540 ladies had registered; with doctors and students included, a grand total of 5000 attended the Convention. There were 77 doctors from South Carolina. Only four members of the Auxiliary attended the morning session. Mrs. T. R. W. Wilson, State President of the Woman's Auxiliary, Mrs. J. W. Bell, of Walhalla, Past State Secretary and Treasurer, Mrs. C. P. Corn, Past State President and Alternate, Mrs. J. L. Sanders, Delegate. The Reports of the Officers were read. The Treasurer reported that a total of \$276.96 had been paid in State dues. South Carolina had remitted \$12.00. The Historian reported that she had solicited all information possible from each State, which called to our attention that South Carolina did not send in an Historical Report.

The Jane Todd Crawford Memorial project was discussed at length by Mrs. W. T. Wooten of Arkansas. She said "that Jane Todd Crawford had contributed so much to medicine that we should consider her heroism with deep concern." She suggested scholarships for outstanding students. South Carolina has contributed \$11.00 to the Jane Todd Crawford Memorial fund. Additional funds will not be requested from any state until a definite plan has been formulated by the Jane Todd Crawford Memorial Committee.

At this time the following Officers were elected:

President, Mrs. Frank N. Haggard, San Antonio, Texas.

President Elect, Mrs. Luther Bach, Louisville, Kentucky.

First Vice-President, Mrs. W. K. West, Oklahoma City, Oklahoma.

Second Vice-President, Mrs. W. T. Wooten, Hot Springs, Arkansas.

Corresponding Secretary, Mrs. Wannamaker, San Antonio, Texas.

Recording Secretary, Mrs. R. H. Clarke, Hattiesburg, Mississippi.

Treasurer, Mrs. C. P. Corn, Greenville, South Carolina.

Historian, Mrs. B. S. Preston, Charleston, West Virginia.

Parliamentarian, Mrs. O. S. Cofer, Atlanta, Georgia.

The reports of the State Presidents were very interesting. Those giving the number of Auxiliaries in the respective States were as follows:

Arkansas 19, Georgia 30, Kentucky 16, Louisiana 6, Mississippi 9, Oklahoma 7, South Carolina 10.

We were justly proud of our Report from South Carolina. Our President, Mrs. Wilson, was indeed a big credit to our State as a representative. It made us feel very happy to have her termed one of the most outstanding Presidents attending the Convention.

The installation of Officers took place at the Annual Luncheon of the Auxiliary at Lord Baltimore Hotel. Every one was delighted with Mrs. Haggard as she accepted the gavel, at which time she displayed marked ability, and her ease of manner was outstanding and charming. A very interesting address was given by Dr. W. D. Haggard of Nashville, Tennessee, who stated that he "heartily endorses the Woman's Medical Auxiliary as it not only increases the attendance at the Meetings, but is a tremendous asset in many respects."

The Technical Exhibits were shown at the Fifth Regiment Armory. A very handsome oil painting of Dr. Joseph Bloodgood of Johns Hopkins was unveiled in the Pediatric Section by Dr. Finney, Sr., who paid very high tribute to Dr. Bloodgood. Dr. Finney stated that he "considered one of Dr. Bloodgood's most far-reaching contributions to surgery was the use of the rubber glove, and that in honoring him we honor ourselves. Further, that in appre-

ciation of his work the Staff of Saint Agnes had had his portrait painted." The artist who painted the portrait was presented. Dr. J. K. B. E. Seeger received the portrait for Saint Agnes Hospital.

A very interesting exhibit was displayed showing the progress made in gynecology in the past hundred years.

An exhibit of much interest to me was the double plates of George Washington. The plates were of gold, the teeth of dark bone, with the edges of the teeth perfectly flat. Gold

springs were attached to both upper and lower plates, supposed to serve as a support when opening the mouth. However, these springs caused irritation of the mouth, as do some of the more modern type plates.

As a whole, the Convention was a splendid success.

Submitted by,
Miriam Sanders, Delegate,
(Mrs. J. Levis Sanders),
103 Crescent Avenue,
Greenville, South Carolina.

NEWS ITEMS

Dr. R. C. Bruce, President of the South Carolina Medical Association, attended the Conference on the Control of Syphilis called by the Surgeon General of the Public Health Service the latter part of December. About a dozen other members of the State Medical Association from South Carolina were present. Plans for developing this campaign in South Carolina will be presented by President Bruce and the State Health Officer at a meeting to be held in Columbia shortly with the special committee of the S. C. Medical Association consisting of Dr. James E. Boone, Chairman, Columbia, S. C.; Dr. Wm. S. Fewell, Greenville, S. C. and Dr. O. B. Chamberlain, Charleston, S. C.

Dr. James A. Hayne, the State Health Officer of South Carolina, was recently presented a gold watch by his associates in the office and the field workers of the State Board of Health in commemoration of his twenty five years service as their Chief. The watch was one of rare beauty, and it was said that only two hundred had been manufactured.

Announcement has been made of the engagement of Miss Almena Milling, Clinton, S. C., to Dr. George Robert Blalock of Clinton, S. C. The wedding will take place at the First Presbyterian Church of Clinton, Tuesday, March 9. Dr. Blalock is a graduate of the Presbyterian College in the class of '26 and received his doctor of medicine degree from the College of Physicians and Surgeons, Columbia University,

New York. He is engaged in the practice of medicine at Clinton.

A marriage of considerable interest was that of Mrs. C. E. McLeod and Dr. H. Clay Foster, both of Beaufort, S. C., which took place in Savannah, Georgia, December 26. The ceremony was performed at the parsonage of Trinity Methodist Church by the pastor, the Rev. Mr. Hearn. Immediately following the ceremony, Dr. and Mrs. Foster motored to Florida for their wedding trip. They will continue to make their home in Beaufort.

Dr. C. Fred Williams, Superintendent of the South Carolina State Hospital, has been appointed to an Advisory Committee of the National Committee for Mental Hygiene which will carry on a nationwide survey in state hospitals for mental diseases. Dr. Williams attended a meeting of the Committee in New York, Tuesday, December 29, 1936, at which plans were formulated and action taken authorizing the survey. Doctor Williams said the survey was being made as the result of a foundation left the Committee for the purpose of stimulating research in state hospitals for mental disease. State hospitals throughout the nation will be visited and their facilities for carrying on the research studied. The committee is anxious to complete the work by fall.

Dr. and Mrs. C. P. Corn, of Greenville, were the guests of Dr. and Mrs. J. W. Bell, Walhalla, S. C., on Christmas Day.

Dr. and Mrs. J. T. Davis, Walhalla, S. C., left Monday, January 3, to spend a few days at Kershaw, S. C., visiting their parents.

Dr. and Mrs. David F. Adcock accompanied by Dr. and Mrs. C. L. Kibler, all of Columbia, attended the Seaboard Surgeon's Convention held in Cuba during the month of December.

The marriage of Miss Caroline Elizabeth Lebby, daughter of Mr. and Mrs. William Lebby, of Washington, and Dr. Henry Clay Robertson, Jr., of Charleston, took place at 8:30 o'clock, Saturday evening, January 2, in St. Philips Protestant Episcopal Church at Charleston with the Rev. M. F. Williams, the rector officiating. Dr. Robertson is a son of Mr. and Mrs. Henry Clay Robertson of S. King Street, Charleston, S. C. He was graduated from the University of the South at Sewanee, Tenn., in 1931, and from the Medical College of the State of South Carolina in 1935. He served an internship for one year at Orange Memorial Hospital, Orange, New Jersey, and now is Resident Physician in Medicine at Roper Hospital in Charleston.

The Program Committee of the South Carolina Medical Association is now ready to receive titles of papers for consideration to be included

on the program at the State Association meeting in Columbia, April 13, 14, 15. Dr. O. B. Mayer, 1517 Hampton Street, Columbia, S. C., is the Chairman of the Committee. Titles may also be sent to the State Secretary.

Dr. James Avery Finger, Charleston physician, died at a Charleston hospital, November 23. He had been in ill health two years. Dr. Finger was a member of the Medical Society of South Carolina and the South Carolina and American Medical Associations.

Dr. Harry Manning Brabham, for 43 years a practising physician in Bamberg County, died at the Tri-County Hospital, Orangeburg, S. C., November 19, following injuries received from a fall at his home. He was the son of the late Col. John Brabham, Confederate Army, and Carrie Kearse Brabham. Doctor Brabham was educated at Wofford Fitting School and the University of South Carolina, graduating in medicine from Vanderbilt University. He enjoyed a large practice throughout his community and was noted for his charity work. Funeral services were conducted from the residence by the pastors of the Ehrhardt Methodist Church, the Baptist Church, and the Lutheran Church.

SOCIETY REPORTS

RESOLUTIONS ADOPTED BY ANDERSON COUNTY MEDICAL ASSOCIATION ON DECEMBER 9, 1936

Gentlemen of the Society:

Your committee begs to note the passing of our beloved President, David J. Barton, who slept into heaven on October 23rd, 1936.

The measure of a man's life is not to be found in the magnificent house in which he lived nor in the vast estate he had been able to create—houses crumble and estates vanish, but thank God, there are things which are eternal, everlasting, and ever resistant to the relentless tooth of time. These never ending verities commend themselves to all people who love the beautiful, the true, and the noble aspects of life.

There was a man who walked this earth two thousand years ago. Among His many wonder-

ful works he took a few fishes and a few loaves and fed an assembled multitude. The material part of this miracle is gone, but the ethical and spiritual part remains: the service He rendered abides and will always be with us—our rock and our salvation and our only hope in these terrible times of stress and storm.

This wonderful principle of service to mankind and especially to underprivileged mankind was the guiding star of David Barton's life. Verily he followed in the footsteps and not afar off, this wonderful Doctor who practiced near the sea of Galilee twenty centuries ago and who never lost a case!

This indestructibility of his service is David Barton's monument, and he will live in the lives of his loving patients through countless years to come. "Who can measure the sweet influences of the Pleiades or loose the bands of

Orion," and who knows the metes and bounds of unselfish service?

His chiefest delight was in his work among his sick children. He was a successful pediatrician because he loved them.

His death is a desperate loss to the Society, to this community, and to this estimable family.

Resolved, therefore, That the Anderson County Medical Society receives with unspeakable grief the news of the death of its President, David J. Barton, M.D.; that it records in all sorrow his passing, that it offers its sincerest sympathy to his family; and that this instrument of writing be given to the local press, spread upon the minutes of this Society, and given to his family.

Signed: The Committee.

MEDICAL SOCIETY OF SOUTH CAROLINA MEETING—DR. JOSEPH HUME LIBRARY IS GIVEN CHARLESTON GROUP

More than fifty members of the Medical Society of South Carolina met at the Fort Sumter Hotel, December 15, 1936, for their annual meeting, during which they elected officers, dined at a buffet supper, and heard talks by W. W. Ball, Editor of the News and Courier, and Dr. W. C. O'Driscoll, of the Medical College of the State of South Carolina.

Dr. W. Atmar Smith, President, and Dr. J. A. Ball, Vice President, were elected for two year terms last year and will continue in their offices for another year.

Officers elected to serve one year were Dr. Joseph I. Waring, Secretary and Treasurer; Dr. W. C. O'Driscoll, Librarian; Dr. W. H. Prioleau, member of the Board of Commissioners for Roper Hospital; Dr. J. J. Ravenel, delegate to the State Medical Association; and Drs. John C. Beckman, A. J. Buist, Jr., Eleanor Townsend, I. Ripon Wilson, Jr., and Robert Wilson, Jr., alternates. Dr. Robert S. Cathcart was reelected a member of the Finance Committee.

Drs. M. S. Moore and B. K. McInnes were made Honorary Members as result of having held memberships in the society for twenty five years each.

Dr. J. I. Waring, Secretary, read a letter from Mrs. Joseph Hume, of New Orleans,

widow of Dr. Joseph Hume, formerly of Charleston, after which he announced the bequest to the society of the library of the late Dr. Hume. The library contains 250 volumes about urological subjects and 150 miscellaneous volumes on medicine and the history of medicine. The library has been deposited temporarily in the library of the Medical College of the State of South Carolina.

Dr. Hume was born in Charleston, October, 1876. After his preliminary and medical education he went to New Orleans, where he was appointed Assistant on the Surgical Staff in the Tulane University School of Medicine. He also practised urology there for thirty years.

Mr. W. W. Ball, among other things, spoke of the meeting of the South Carolina Medical Association at Laurens in 1890.

Dr. W. C. O'Driscoll spoke afterwards, talking in a lighter vein.

J. I. Waring, M.D., Secretary.

RIDGE MEDICAL SOCIETY MEETING

The Ridge Medical Society met Monday, the twenty first of December, 1936, at 7:20 P.M., with a good attendance. We had four visitors, Dr. A. A. Walden and Dr. W. H. Mathis, of North Augusta, and Dr. J. R. Allison and Dr. T. A. Pitts, of Columbia.

Dr. W. W. King made a report on the status of the proposed new hospital.

Dr. King reported some cases of syphilis which at first were not positively diagnosed as such. He also reported a case of syphilis in a baby only a few weeks old which he was treating and which elicited interesting discussion. He then read an instructive paper on diphtheria and its treatment, etc., which elicited general discussion.

Dr. Ballinger reported some sudden deaths from the effects of diphtheria.

Dr. Garvin reported a case of suspected diphtheria which received large doses of antitoxin and which had a well developed case of mumps on the third day of his illness. The importance of proper examination and rest was emphasized.

Dr. W. P. Timmerman reported a case of severe bleeding from a severed umbilical cord which had been ligated. He also exhibited a case of sudden severe hoarseness, etc.

Dr. T. A. Pitts spoke of his official duties and some of his doings as our Councilor and commented on the impracticability of some of the scientific articles which we occasionally see. He exhibited a new dial and a number of X-Ray pictures of full term babies in the utero and their positions, which showed the dimensions of the woman's pelvis and the foetus. This was interesting as well as instructive. He was highly commended for his presentation.

Supper was served in the Rutland Hotel. Our visitors and a few others made short after dinner speeches.

Our beloved co-laborer, Dr. D. B. Frontis, of Ridge Spring, was made an honorary member of our Society.

The Ladies Auxiliary was entertained in the home of Mrs. W. Price Timmerman. It was well attended and had an interesting program.

W. P. Timmerman, Secy.

COLUMBIA MEDICAL SOCIETY MEETING

The December meeting of the Columbia Medical Society was confined solely to the election of officers for the ensuing year, which resulted as follows:

Dr. Walter J. Bristow, President, to succeed Dr. Theo. DuBose, Jr.

Dr. J. E. Boone, Vice President, to succeed Dr. D. F. Adcock.

Dr. J. McMahan Davis, Secretary, to succeed Dr. Benjamin Rubinowitz.

Dr. Thos. D. Dotterer, Treasurer, to succeed himself.

Drs. O. B. Mayer and H. H. Plowden were elected delegates to the State Convention to serve with Dr. F. D. Rodgers, Dr. Manley E. Hutchinson, and Dr. Watson B. Talbert, who were hold overs from last year.

Dr. F. E. Zemp was elected to the Board of Censors to serve with Dr. H. H. Plowden and Dr. A. F. Burnside.

There being no further business, the meeting was adjourned.

J. McMahan Davis, Secy.

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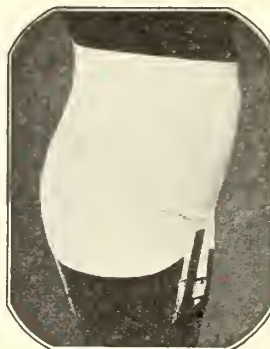
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REPORT OF CONFERENCE ON VENEREAL DISEASE CON- TROL WORK

By

DRS. JAMES A. HAYNE, SEDGWICK SIMONS,
G. E. McDANIEL,
State Board of Health,
Columbia, S. C.

A national conference on venereal disease control work was held in Washington, D. C., on December 28-30, which about 800 representatives from nearly every state, Hawaii, Alaska, and Puerto Rico attended. These representatives were members of public health agencies of the states and territories, urologists and others in the private practice of medicine, syphilologists and teachers in medical schools, social welfare workers, and interested laymen. The purpose of the conference, called by Surgeon General Thomas Parran of the United States Public Health Service, was to discuss ways and means of reducing and controlling the menace of the venereal diseases.

The discussion at the conference revolved around three broad topics: viz., prevalence and public health aspects of control, treatment as a factor in control, and education. The actual incidence of either syphilis or gonorrhea is not known. Some surveys indicate that there are about 683,000 cases of syphilis under treatment in this country. It is also estimated that 0.5 per cent of the total population suffer initial attacks of syphilis annually in the United States. Of course, these are estimates based on certain data and would vary in different states and in different population groups. Methods of reporting were discussed at length, and it was decided by the conference that reports of cases be made by name, serial number, or correct initials, and date of birth, depending

upon the method best suited to the individual state or municipality. It was, however, the opinion of the conference that all cases should be reported by name and address upon delinquency in treatment. Investigation of sources of infection and of contacts with infective individuals should be tactfully, patiently, and thoroughly undertaken; because they are the most effective means of discovering new cases that must be brought under treatment in any control program. Medical follow-up of the infected individuals is also a most important factor in the control of syphilis.

In the matter of specific treatment of this group of infections it was the general consensus of opinion, as expressed in the collective report of the conference, that this phase of attack would probably constitute the most potent factor both in preventing invasion and in controlling spread among the general population. Very aptly was it emphasized that the active practitioner should constitute the chief dispenser of all drugs and other therapeutic agents, and that he should accurately acquaint himself with the several phases of these diseases and their treatment.

As to the specific plan of program to be adopted by any state, district, or municipality, it was generally agreed that this should be a matter to be decided upon by the particular section or locality. However, it was generally agreed that rural as well as urban areas should be given appropriate and thorough service, the type and extent of which should be governed by the character and size of the given population. As always, division of opinion as to the wisdom of the operation of clinics (urban or rural—stationary or traveling) for the treatment of the infected was striking. Also the question

as to who should operate such clinics—practitioner or health department—was fully discussed, but it was generally decided that where feasible such clinics should be established and maintained as well in rural areas as in concentrated centers of population, in which latter localities they would appear indispensable—furthermore, that organized public health should sponsor the clinics and render all assistance possible in the execution of the work.

Concerning the selection of specific therapeutic agents it was the opinion of the conference that in private practice and in the hands of physicians skilled in the knowledge and administration of such agents as a general group, this should be decided by the individual doctor. However, it was forcefully brought out that where health departments advised practitioners as to the choice of drugs, they should definitely limit the group of preparations in their recommendations and should advise only the use of well-established, safe, efficient agents, definitely omitting those yet in an experimental stage of development or, again, those not safe or inapplicable in clinics or in the hands of those not especially trained and skilled in their administration. For instance, in the medicinal management of syphilis it was strongly recommended that in the average case and for general purposes, arsenicals to be advised should include only salvarsan and neosalvarsan; of the bismuth preparations, iodobismutol and bismuth salicylate; and of the mercurials, the ointment.

Finally, of the continuous or intermittent types of treatment, it was generally decided that the continuous method should always be employed in early cases and those of early latency and should be maintained over a period yielding reasonable certainty as to clinical care. In old cases, however, and those of advanced latency, periods of rest were advised.

An educational program for both professional and lay groups was emphasized. The results of the experimental studies relating to diagnosis and treatment should be made readily available to all the profession who are interested in the treatment of the venereal diseases. The public should be informed of the dangers of these diseases and of the need for early and adequate treatment. The need for further research into the field of the bacteriology of these diseases,

their diagnosis, and treatment was pointed out. The need for a shorter and yet effective treatment was emphasized.

This nation-wide program is supported by some large and influential organizations. The Trustees of the American Medical Association expressed their approval and support of these efforts in a letter by Dr. Fishbein. Other large organizations lending their support are the American Social Hygiene Association headed by Dr. William F. Snow, the American Public Health Association, and the National Federation of Women's Clubs.

The conference of state and territorial health officers discussed the financial needs for an adequate public health program of social security and passed a resolution asking the President of the United States and the Congress to supply the sum of \$25,000,000 for an adequate communicable disease control program. This is an excess of \$15,000,000 over that now appropriated.

The representatives from South Carolina attending the conference were:

Dr. R. C. Bruce, President, South Carolina Medical Association, Greenville

Dr. James A. Hayne, State Health Officer, Columbia

Dr. F. M. Routh, Chairman, State Board of Health, Columbia

Dr. J. E. Boone, Chairman, Syphilis Committee of the S. C. Medical Association, Columbia

Dr. J. M. Davis, Urologist, Columbia

Dr. Ben F. Wyman, Director, County Health Work of the State Board of Health, Columbia

Dr. Leon Banov, County Health Officer, Charleston

Dr. Sedgwick Simons, Assistant Epidemiologist in charge of Venereal Disease Control Work, State Board of Health, Columbia

Dr. Paul W. Sanders, Urologist, Charleston

Dr. Hugh E. Wyman, Urologist, Columbia

Dr. W. R. Wallace, Physician and member of the Executive Committee of the State Board of Health, Chester

Dr. G. E. McDaniel, Epidemiologist, State Board of Health, Columbia

Dr. H. G. Callison, Director of Training,
State Board of Health, Columbia
Dr. H. M. Smith, Director of Laboratory,
State Board of Health, Columbia

A CASE REPORT OF THE EASTERN TYPE OF ROCKY MOUNTAIN SPOTTED FEVER

By

J. HOWARD STOKES, M.D.,
McBee, S. C.

It is well to differentiate between the Eastern type of this disease and the more severe and better known form, the Western type. The chief difference is that of virulency, the Eastern type indicating less virulent virus. However, there are other differences, namely: the Eastern type is presumably transmitted by two or three varieties of ticks, of which the common dog tick, *dermacentor variabilis*, is probably the most important; and the seasonal prevalence is somewhat later than that of the Western type.

The disease may be communicated to any of the smaller rodents and to dogs. In its natural transmission, the dog tick is mainly concerned. The micro-organism is generally classed with the poorly defined group *Richettsia*.

The Eastern type of spotted fever occurs in the late spring and throughout the summer, with an occasional case in the fall months. Cases in men predominate. Cases in children constitute a larger proportion of the total number. Spotted fever tends to recur in the same locality, sometimes after intervals of several years. Infection is derived from the bite of an infected tick; occasionally, it follows the crushing of an engorged tick.

The incubation period varies from two to twelve days. Multiple cases in a household are not uncommon.

The onset is usually abrupt, in the late afternoon or early evening. The initial symptoms are: chill, with sudden and pronounced elevation of temperature, prostration, and generalized aching. Frequently, there is pain in the neck, and occasionally, abdominal pain. The

fever reaches a high level, and is without daily remissions in most instances. It usually lasts about three weeks, but fourteen days is not uncommon in the milder cases.

The rash, which is most striking, appears between the second and fifth days—most frequently on the third or fourth day. The site of first appearance is nearly always the wrists and the ankles, spreading next to the back. Then, in centripetal fashion, it spreads very rapidly, and becomes generalized. The palms and soles are usually involved, the face frequently, and the scalp occasionally. The lesions are at first faint roseolus macules, from two to eight mm. in diameter, which often fade in the morning, and reappear with the rise of fever in the afternoon. They grow more distinct daily, and by the middle of the second week are definitely petechial in all but the milder cases. The rash in its full development is purpuric, and as a rule most abundant and intense on the wrists, ankles, legs, upper part of the back, shoulders, lateral surfaces of the arms, and the buttocks, in the order named.

Simultaneously with the development of the cutaneous eruption, there frequently appear hemorrhagic spots, two or three mm. in diameter, on the buccal mucosa, particularly over the palate. At this time, it is not uncommon to find small ulcers on the palate and tonsils. The papillae are often so enlarged as to give the tip and edges a mulberry-like appearance. The pharyngeal mucosa is usually inflamed. The tongue is dry and coated in the center, with a dry, red border. The face is flushed, sometimes dusky. The eyes are injected, and the eye lids swollen. In some cases, there is marked edematous swelling of the face, hands, feet, and genitalia. Rigidity of the neck, with the presence of Kernig's sign, is often noted. The spleen is usually enlarged and tender. The pulse tends to be rapid in ratio to the temperature, and, if very rapid, is of poor prognostic significance.

The commonest symptoms at the height of the disease are: prostration, severe headache, usually frontal, constipation, often obstinate, nausea and vomiting, at times very profound. Backache, pains in the legs, and pain in the back of the neck, an unproductive cough, photophobia, night sweats, and sore throat.

*Read before the Fifth District Medical Society, York, S. C., October 8, 1936.

Disturbances of the central nervous system are severe. The lethargy may progress to stupor, or even coma. Delirium is common, and may be violent and protracted. Meningismus is frequent. In severe cases, there may be loss of sphincter control. Hyperesthesia and tremors are occasionally noted.

The white blood cell count in the early stages may be within normal limits. At the height of the illness, a definite leucocytosis as a rule occurs. The red blood count often falls as the disease progresses. The urine may contain small quantities of albumin and, rarely, casts. The Weil-Felix reaction is usually, but not always, positive.

Convalescence tends to be protracted. The commonest complications are mental confusion, deafness, and visual disturbances. These may persist for weeks.

The fatality rate is about twenty-five percent. When death occurs, it is usually during the second week.

There is no specific treatment. Baths and sedatives may serve to quiet the patient, and help to conserve his strength. Caffeine and digitalis are used as indicated. Maintenance of an adequate fluid intake is important.

Prevention must depend largely upon personal prophylaxis. When known tick-infested areas are entered during the spring and summer, it is advisable to wear such clothing as will compel the ticks to crawl up the outside of the garments. The ticks then may be detected on contact with the skin of the neck, or even before reaching that far. Ticks seldom attach immediately. After removal of the ticks, it is customary to cauterize the spot with silver nitrate or nitric acid. The tick vaccine developed by Spencer and Parker confers a substantial measure of protection.

Case report. Mrs. J. H. Age 57, White.

Chief complaint: Severe backache and headache, fever, and nausea.

Present illness: Began May 30, 1936, with chill and sudden elevation of temperature, pain in back and legs, headache, and marked prostration. There was some nausea, but no vomiting. Pain, fever, and prostration have become progressively worse until the present time. Patient constipated. No urinary abnormalities or difficulties.

Examination three days after onset of the disease revealed a markedly prostrated patient, complaining of, and quite evidently in, considerable pain. Temperature 103.4, pulse 120, respiration 36. There was a flushing of the face and upper chest, with a few small roseolus macules on right wrist and right shoulder. There were numerous coarse rales over lower right chest.

On the fourth day of the illness the rash appeared in profusion. Both upper and lower extremities were covered with the macular eruption, and some increase in number on upper chest was noted. There was no involvement of the face and scalp. On the seventh day the rash became definitely purpuric, and both palms and soles were heavily involved. At this stage the entire body, other than the face, was covered. The skin was flushed, red, and edematous, actually pitting on pressure. The rash seemed to appear in crops, following the rise in temperature—certainly, it was more evident in the late afternoon when the temperature was at its height. Forty days following onset of the disease, there were still some spots left. Application of a tourniquet to the arm brought them out very plainly.

Just prior to the appearance of the purpuric feature of the rash, there appeared many small ulcers on the buccal mucosa, palate, and tonsils. There was also a rather severe conjunctivitis at this time.

The temperature rose to 104, and remained, with occasional morning remissions to 103, for fourteen days. At this time it fell to 102, remaining at this temperature for four days, and then gradually falling to normal, for the first time, on the twentieth day. The highest temperature recorded during this febrile period was 105.

Prostration, very marked during the first two weeks of the illness, became most severe on the tenth day, and continued for four days. During this time, the patient was irrational and extremely lethargic, but never comatose.

Headache and backache, with pain in the legs, seemed more pronounced during the height of the fever, that is, in the later afternoon, and were present for the greater part of the illness.

While there was noticeable tenderness over

the splenic and hepatic areas, neither of these organs was palpable, and no embolic phenomena were apparent. On the sixth day of the illness there was an increase in pulse rate—140 and a fall in blood pressure—90/60. Administration of digitalis soon returned the heart to normal, but blood pressure remained slightly below normal during the entire course of the illness.

There was no suppression of urine excretion, but catheterization was necessary in several instances, due to a flare up of an old cystitis. The urine was concentrated, and showed mild albuminuria during the entire illness; occasional granular casts; and many pus cells during the period of cystitis.

Laboratory findings in the case were leucocytosis on the fifth and fourteenth days. A positive Weil-Felix reaction was obtained on the twelfth day. This was the second specimen; the first obtained on the eighth day was negative. The National Institute of Health also reported complete agglutination *Bacillus Proteus* X 19 in dilution of 1:160, obtained on the twentieth day.

Convalescence in this patient was uneventful. The only complication was a flare up of cystitis. The chest involvement, while present the greater part of the illness, cleared without apparent residual findings.

Treatment was entirely symptomatic. Baths and spongings for temperature, with occasional administration of salicylates for severe aches and pains. An adequate fluid intake was maintained without any great difficulty. Except for the use of digitalis, as mentioned, the only drugs used were saline laxatives for the rather bothersome constipation. This condition also occasionally necessitated enemas for its relief as well as the relief of abdominal distention.

Comment: This is a rather typical case of the Eastern type of Rocky Mountain Spotted Fever. The most reasonable diseases to be considered in a differential diagnosis are: typhus fever, typhoid fever, measles, and the eruptive stage of cerebro-spinal meningitis, in the order named.

Evaluation of the symptoms and physical findings, along with the help of the laboratory, will narrow the differential diagnosis to a consideration of typhus fever.

I feel that typhus fever can be safely ruled

out in this case through the appearance of the rash in the palms and on the soles, since these parts are invariably spared in typhus fever. The length of the illness, the protracted high fever, and the marked prostration, also tend to support the diagnosis of Rocky Mountain Spotted Fever.

No history of a tick bite could be obtained upon repeated questioning. Ticks removed from dogs in the house were found to be non-infectious.

Note: The description of this disease was taken from A. S. Rumreich's article, "The Typhus and Rocky Mountain Spotted Fever Group: Developments in Epidemiology and Clinical Considerations," in the *Journal of the American Medical Association*, February 4, 1936.

TUBERCLE BACILLUS ERADICATED CASE REPORT

By

W. TERTSH LANDER, M.D.,
Williamston, S. C.

The friendly interest elicited from time to time in my Tuberculosis work leads me to believe that a brief accounting may be acceptable at this epochal stage. I mention my last three cases only, without detailed description. These, 73 years, 23 years, 35 years of age were thoroughly examined, not by me alone, to determine condition. Physical findings and positive Tuberculin reaction suggested advisability of X-ray. These were made at our hospital. They were interpreted here and by Dr. Busch, of the Greenville County Tuberculosis Sanitarium, and Dr. T. R. W. Wilson, Pathologist of the Greenville Hospital. My CO₂ gas treatment was then instituted. Improvement was very satisfactory. After 28 weeks, 24 weeks, 17 weeks, respectively, the patients had been for several weeks in such good condition that a test examination seemed pertinent. Physical signs were negative; physical condition all that could be desired. As interpreted by the authorities already mentioned, the X-rays now showed the lungs entirely clear.

In treating a luetic case, when the Wassermann becomes negative, we know that the

*Read before the Anderson County Medical Society, Anderson, S. C., December 9, 1936.

spirochetes have been killed. In a tubercular case, however favorable the progress under accepted treatment, the Tuberculin reaction continues positive, enough germs always remaining to give the reaction: once positive, always positive. In our three cases a terminal Tuberculin reaction was no longer positive, but

negative, as read by Dr. Busch and Dr. Wrenn. What does this negative test mean if not that the Tubercle Bacilli are killed? So far as can be learned, this seems to be the first record of the germs exterminated: of a real cure—not arrest—of Tuberculosis. This was established October 19, 1936.

SOCIETY REPORTS

MARLBORO COUNTY MEDICAL SOCIETY

The Marlboro County Medical Society held its annual meeting at the Masonic Hall, Bennettsville, S. C., January 8. A reception was held at the Marlboro County General Hospital in the afternoon from 3 until 5.

The scientific program began at 5 P.M. in the Masonic Hall. Dr. Robert C. Bruce, of Greenville, President of the South Carolina Medical Association, delivered an address on "The Problem of Compulsory Insurance as It Relates to the Practice of Medicine." Dr. Samuel F. Ravenel, of Greensboro, spoke on "Nephritis in Children." Dr. James M. Northington, of Charlotte, discussed "Health Care of the Aging." After dinner in the banquet hall Dr. A. Johnston Buist, of Charleston, spoke on "Endometriosis." This was followed by a round table discussion on each talk.

This is one of the most important medical meetings in the State. Meetings have been held regularly near January 1 for the last 15 years, and they always attract a number of physicians from the two Carolinas and even other States.

D. D. Strauss, M.D., Secretary.

OCONEE COUNTY MEDICAL SOCIETY

The Oconee County Medical Society met at Westminster, S. C., January 11, 1937, with a large attendance. Dr. W. C. Mays, of Fair Play, the President, presided.

The scientific program consisted of a round table discussion of the Syphilis problem in Oconee County and in South Carolina led by Dr. Harry Ross, of Seneca, Chairman of the Committee on Syphilis Control in Oconee County.

Under the head of general business a tele-

gram was read from the Dean of the Medical College at Charleston calling attention to the necessity for a generous support of the school on the part of the Legislature now in session. A special committee was appointed to represent the Society on Medical Education in this State.

The following officers were elected to serve for the year 1937: Dr. W. A. Strickland, President, Westminster, S. C.; Dr. Jos. A. Johnson, Vice President, Walhalla, S. C.; Dr. E. A. Hines, Secretary-Treasurer (reelected) Seneca, S. C.; Dr. J. T. Davis, Delegate to the State Medical Association, Walhalla, S. C.; Dr. F. T. Simpson, Alternate to the State Medical Association, Westminster, S. C.; and Dr. James E. Orr, Seneca, S. C., to serve on the Board of Censors.

E. A. Hines, M.D., Secretary.

SECOND DISTRICT MEDICAL SOCIETY

The Second District Medical Society met at the Summerland Hotel, Batesburg, S. C., Thursday, January 28. The following officers served during the past year: Drs. F. G. Asbill, President; Dr. E. W. Barron, Vice President; and Dr. D. F. Adcock, Secretary-Treasurer; all of Columbia. A large number of doctors were present.

Papers were read by several prominent physicians. Dr. R. C. Bruce, of Greenville, President of the S. C. Medical Association, read a paper on Social Security; Dr. Robert Wilson, of Charleston, on Clinical Interpretation of Blood Pressure; Dr. T. M. DuBose, Jr., of Columbia, on Obstetrics, Analgesia and Anaesthesia; and Dr. W. R. Barron, of Columbia, on the Treatment of Syphilis.

After the scientific session the doctors adjourned for dinner at the hotel.

D. F. Adcock, M.D., Secretary.

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OF THE

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FEBRUARY, 1937

THE APRIL MEETING STATE ASSOCIATION

Since the last issue of the Journal several committees have held meetings and formulated plans for the South Carolina Medical Association annual convention in Columbia, April 13, 14, 15. The Hotel Headquarters is always an important matter, and we are informed that The Jefferson Hotel is to be the Head-

quarters. The House of Delegates, the scientific sessions, and the various exhibits will all be quartered there. There are many other good hotels in Columbia, and their names and rates will be given out in due time. The scientific committee, of which Dr. O. B. Mayer of Columbia is the Chairman, reports a good many titles of papers in hand; however, those members who wish to be considered for a place on the program should communicate with the Committee at an early date.

One of the great features of the convention this year is that of the laying of the Corner Stone by the Masonic Grand Lodge of the new half million dollar building at the South Carolina Tuberculosis Sanatorium. The Association will cooperate in these exercises. The guest of the Association, Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, will be the principal speaker.

Another feature we wish to call particular attention to is that of the meeting on Wednesday night, April 14, in the interest of the health of the people of South Carolina and to which the public will be invited. Dr. Fishbein will be the principal speaker at that meeting also.

It is not too much to expect six or seven hundred people to attend the Columbia meeting when we consider the unusual type of program now in preparation.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY, MARCH 8, 9, 10, 11, 1937

We are very much interested in the extensive new venture on the part of the profession in New Orleans to provide four days of graduate instruction for the benefit of the medical profession of the United States. The faculty will be assembled from the great medical schools of the North, South, East, and West. In fact, nearly all of the great medical centers are contributing through their teachers to this instruction. There are sixteen hospitals in New Orleans and two large medical schools. The program will be put on at the Roosevelt Hotel. To visit New Orleans at this time of the year will be a thrilling trip. We repeat, that for the first time this great medical center is putting on an extraordinary program of graduate instruction.

We have made some progress along this line in South Carolina, but of course our facilities are meager compared with New Orleans; but we are keenly interested that a large number of the physicians of South Carolina take advantage of the good fortune that awaits them there. Programs and other information may be obtained by writing to Dr. Wm. H. Gillentine, Secretary of the Assembly, 1430, Tulane Avenue, New Orleans. The registration fee will be ten dollars.

THE CONTROL OF SYPHILIS

Elsewhere in this issue there appears much information about the nation wide campaign now under way looking to the study and control of syphilis in this country. The State Board of Health and the South Carolina Medical Association have set up an extensive plan to reach the remotest sections of our State. In the last analysis every physician in South Carolina will be expected to lend his influence and active support of the plan. The House of

Delegates will be asked to ratify and amend if necessary the proposed plan in order that there may be no misunderstanding as to the working thereof.

PAYMENT OF DUES. AIKEN FIRST COUNTY SOCIETY TO REPORT

It is interesting every year to note the promptness with which county society dues come into the headquarters office. This year Aiken County wins the title of being first, though others have followed in short order. We have a faithful group of county society Secretaries and Treasurers, but it will be a great convenience if the members of the Association pay their dues promptly to these officers. There would appear to be no good reason for delay this year, since the medical profession participates in the general return of prosperity now evident. The Association increased in membership last year and should continue that increase in 1937.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

FURTHER OBSERVATIONS ON THE USE OF SPECIFIC IMMUNE SERUMS IN THE TREATMENT OF STREPTOCOCCIC INFECTIONS

By Dr. Harry L. Baum

December, 1936—*Annals of Otology, Rhinology, and Laryngology*, pg. 969

This year seems to be one in which streptococcic infections are playing a vital role; so the investigations of Dr. Henry L. Baum in "Further Observations on the Use of Specific Immune Serums in the Treatment of Streptococcic Infections" has a real enlightening interest in unfolding the method by which this treatment operates.

"Two years ago it was my privilege to address this Association on the subject of specific treatment of streptococcic infections. At that time I stated that the blood of certain patients

convalescing from streptococcic infections seemed to contain immune substances which could be utilized in the treatment of clinically dissimilar infections of streptococcic etiology, and suggested a method of selection of high titer serums for therapeutic use in such instances."

"Champ Lyons, on the other hand, in a very recent paper, goes into considerable detail in his description of a method of selection of donors for transfusion in hemolytic streptococcic infections, basing his conclusions on the fact that some individuals possess, in their serum, the epsonizing antibody which is essential to the process of phagocytosis and intracellular digestion of streptococci."

Howard years ago showed that epithelial phagocytosis was the curative factor in conjunctival infection. "His (Lyons) method of selection is essentially that of determining the

epsonic index of the donor against the particular invading organism to be combated. At the same time (he) treats the toxemia, when necessary, by the use of commercial (horse serum) antitoxin, the selection of which is made by means of the Shultz-Charlton test of specific blanching."

"Following streptococcic infections, human convalescent serum frequently contains available antibodies which may be used in the treatment of other streptococcic infections characterized by clinical manifestations essentially different from those from which the donor has recovered," and "the agglutination test is a most valuable means of selection of serum for use in the treatment of individual cases."

According to Lancefield and collaborators, "hemolytic streptococci can be differentiated serologically by means of the precipitin reaction into distinct and sharply defined groups." The special type of this group can be determined by "the precipitin test with acid extracts of the so-called M. fraction—and suitably prepared immune rabbit sera."

There have been found (by Griffith and Lancefield) many different strains of this streptococcus in many distinct clinical manifestations. "For example, Griffith has shown that as many as thirteen distinct types of hemolytic streptococci, as differentiated serologically by slide-agglutination, were present in 222 strains cultured from a series of scarlet fever. This may explain the fact that scarlet fever has proved to be the most prolific source of anti-streptococcic serum in my work, and that we have rarely failed to find among our scarlet fever derived from serums at least one which was apparently specific in its therapeutic action against a given streptococcic infection. It doubtless also explains the fact, stressed in former papers on this subject, that every scarlet fever derived serum is apparently not as therapeutically potent, even against scarlet fever and its complications, as some may be."

"Thus I think it must be accepted as proven that many different disease manifestations may result from invasion of the human body by streptococci of the same serologic type, and that quite similar clinical entities may be found associated with streptococci giving different type-specific reactions. And, therefore, since

organisms causing identical disease manifestations vary widely in type-specificity, it is logical to conclude that the protective substances elaborated by different individuals suffering from the same clinical manifestations differ proportionately." "This we have found clinically to be true, for there is a great variation in agglutinating titer of serums from different individuals and a proportionately great variation in therapeutic specificity when the serums are used in treatment of diverse streptococcic infections."

"Griffith makes another observation which is both interesting and important in relation to the work under consideration. He has noted that his rabbit-derived serums invariably contain agglutinins which act upon heterologous members of the group. In other words, every serum contains agglutinins which are specific for organisms other than the one administered to produce them."

Dr. Baum has found that "the serum of certain donors has been found to possess a high titer of agglutinins for almost any streptococcus, though not for all, and such serums are usually therapeutically potent in the treatment of almost any streptococcic infection."

In determining the value of a serum Dr. Baum in his article does not stress type specificity but is interested only in therapeutic specificity.

"It might be observed with reason that the agglutination test alone is an insufficient method of determination of therapeutic efficiency," because "bacteria have many deleterious effects upon the nose, which effects are produced by different agents, such as erythrogenic toxins, fibrolysins, hemolysins, and leucocidine." We have at present no specific agent available for neutralization of each different toxin. "We are daily faced with the practical problem of treating individuals sick with streptococcic infections, we now know that we have an agent which contains some if not all of the specific therapeutic agents needed, and we have also a method of estimating its relative therapeutic efficiency, and these sera seem to combat efficiently the deleterious action of fibrolysins, hemolysins, leucocidins, erythrogenic toxins or what not."

The opsonin and agglutination tests seem to

be related in degree. Pooled sera may be used until the patient can be tested for the presence of a streptococcic infection and a precipitin test made.

Dr. Baum gets much sera from scarlet fever cases. Influenza cases are frequently of the various streptococcic types; why could not sera be obtained from influenza cases, typed and put aside?

As to dosage he says—total dosage of 300 cc. may be used, but some think that small doses are effective, more so than the large doses; so it may be best to use 20 cc. repeated as needed.

"Slight if any improvement is observed in the

first twelve hours after administration. During the second twelve hours the merest hint of improvement may be noted, though this is often debatable. In the third twelve hours the progress toward cure is frequently phenomenal, if the serum is to prove effective. If sufficient dosage has been administered, and no improvement is noted in the third twelve-hour period, I am inclined to think that treatment by this means will be unavailing. At the end of forty eight hours, if treatment is to accomplish anything, improvement is invariably self-evident and further progress as a rule rapid and uneventful, with much shortened convalescence."

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

VULVOVAGINITIS

There are four relatively frequent conditions which are associated with vulvovaginitis. These are acute gonorrhea, trichomonas vaginalis infestation, glycosuria and thrush (*Monilia albicans*) infection. A differential diagnosis of the true condition cannot be made either from inspection or from history. It can, however, be made by quite simple laboratory examinations.

In every case of vulvovaginitis the urine should be tested for sugar. If this is done, one will be frequently rewarded by finding glycosuria as the cause. This will not only indicate the treatment for the local condition, but will also be life saving to a patient in whom diabetes had not been suspected.

Gonorrheal infection is positively diagnosed by finding the gonococcus in spreads made from material expressed from Skene's tubules and the vulvovaginal glands. In early cases the cervix may not be involved, and there should be no effort made to secure a slide from cervical secretion because of the danger of extending infection to an uninfected area.

Trichomonas vaginalis vaginitis is positively recognized by finding mobile trichomonads in the vaginal secretion. The examination is easy. A warm moist speculum, unlubricated,

is gently inserted into the vagina. Some of the vaginal secretion is taken up with a cotton tipped applicator or a pipette, and this is mixed with a few drops of warm physiological saline solution or plain water. A drop of this suspension is placed on a slide and examined immediately for the motile forms. They can be seen with the low power objective and confirmed with the high power. The organism is somewhat larger than a white blood cell. They have two motions, vibratory and propulsive. By careful focusing the terminal flagelli may be seen whipping actively. The organisms become inactive when chilled.

The fourth type of vulvovaginitis is not so common, but it occurs frequently enough not to be a rarity, and when present it is extremely uncomfortable and very resistant to ordinary forms of treatment. The infection is with the thrush fungus, similar to that causing stomatitis in infants. These may be present and usually are similar small white patches overlying superficial ulcerations scattered about the hymenal remnants, inner aspect of the small labia, and even up in the vagina. If there are recognized, they simplify the diagnosis. However, when the infection is most severe, these are likely to be overlooked or absent, and instead the tissue surfaces are irritated and superficially denuded

and there is much seropurulent discharge. A slide made from this discharge in the ordinary manner and stained with methylene blue will show a mass of what appear to be long straight rods, frequently in chains, and interspersed among these, deeply stained oval bodies resembling small lymphocytes. The rods are broken mycelial filaments, and the blue bodies are spores. To the novice this slide is not as

characteristic as one made by taking up one of the rice-like particles occurring in the discharge, placing it on a glass slide and compressing it between this and another slide. This will give a thickened preparation and one in which meshes of unbroken mycelial threads usually can be found easily. When seen once, they will not be forgotten.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"CONCERNING COLOSTOMY"

Colostomy is a valuable procedure which is not used to fullest advantage, as in the minds of a great many among the profession as well as the laity it is associated with objectionable features regarding control and cleanliness. The basis for this attitude is most likely improperly performed colostomies; because if they are properly performed and cared for, these features are reduced to a minimum. Colostomy is used in a great many conditions for the purpose of providing comfort and cleanliness to the patient as well as in the treatment of diseases.

It is far more sanitary and less troublesome than the condition which exists in destructive diseases of the rectum in which there is persistent discharge of feces and foul exudates with resultant painful excoriation. Upon diverting the fecal stream a great deal of the inflammation subsides. The patient is more comfortable and the general condition improves. Permanent colostomy is a necessary part of the operation for cure of carcinoma of the rectum. Without it the operation would be limited to local excision of the growth which is totally inadequate, as it leaves the lymphatic drainage area. There are other uses of colostomy which will not be considered here, as at present we are chiefly concerned with its proper performance and care. In a recent article in the Southern Medical Journal (29:130 February '36) Dr. Rankin has considered the subject from this viewpoint, and it will be well to review some of the points which he makes.

The colostomy should be as simple as possible. The site is not as important as how it is made. The left lower quadrant—between the rectus muscle and the anterior superior spine—is the location generally preferred. The incision in the abdominal wall should be small. In making a loop colostomy it is important that the bowel be pulled down as far as its mesenteric attachments will allow, thus taking away all the slack. This is a valuable safeguard against prolapse. The segment must be brought wholly outside of the abdomen, the peritoneal and skin layers being closed under it through an opening in the mesentery. Where the bowel is not brought outside of the abdomen some of the fecal stream passes into the lower loop; there is a tendency for mucous membrane prolapse and also a tendency for the external opening to close. The loop is prevented from retracting by a stiff rubber tube placed under it. No sutures are used in the bowel wall. Such a loop need not be opened for 48 hours or longer, as gas and semisolid fecal matter will pass over it. It is severed across completely after it has become firmly united to the abdominal wall.

Diet is an important factor in the care of a colostomy. If it can be regulated so that the stools are formed, the individual can engage in normal activities. The bowel is evacuated either once or twice a day. Some patients find that following a thorough irrigation in the morning, the colostomy is not heard from again until the next morning. When it occurs, diarrhoea is most troublesome and is to be controlled

by diet and medication. Colostomy pouches are generally unsatisfactory as well as unnecessary in a properly regulated case. Most patients finally wear only a firm washable pad

over the stoma. The skin is cleansed with soap and water. The intelligent care of a properly performed colostomy reduces to a minimum the objectionable features connected with it.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT NO 324 (34159)

Case of Dr. Richards

Student Durst (reading):

A 40 year old negro man, employment not stated, admitted 7-18-36, died 7-24-36.

History: Patient brought in by neighbors who said he was getting "nutty in the head." Wife stated that he had had chills and fever for 7 weeks. The chills disappeared under medical treatment, but the fever persisted. Began to become disoriented one week before admission. Disoriented most of the time, but is occasionally lucid.

Examination: Temp. 102.6, pulse 120, resp. 32, BP 84/62. Apparently not in pain. Seemed to have occasional coarse tremors which were controllable. Seemed to have speech defect. Poorly nourished. Skin and eyes negative; pupillary reaction possibly sluggish. Teeth dirty and carious. Uvula and tonsillar pillars swollen, pharynx red, showing moderate post-nasal drip. No rigidity of neck. No apparent lymphatic enlargement. Lungs: Fremitus and percussion normal, although one examiner suspected that a friction rub was present. Abundant coarse and some crepitant rales throughout both lungs, most numerous in left lower lobe. One examiner thought the breath sounds in this area were broncho-vesicular and roughened, another thought the breath sounds were normal. Heart: apparently not enlarged. Sounds weak, no murmurs. No thickening of peripheral vessels. Abdomen scaphoid, no organs or masses palpated, no areas of tenderness. Reflexes generally hyperactive, although left KJ could not be elicited. No clonus, Babinski or Kernig. Some spasticity of all muscles. Positive Romberg.

Laboratory: Urine (7-18) completely negative. Blood (7-18; 7-19): Hb 62 per cent, 67 per cent D; RBC 4.4 million, -; WBC 5,250, 3,300; polys 53 per cent, -; lymphs 48 per cent, -; thick and thin smear for plasmodia (7-20) negative. Blood Urea N (7-20) 19 mgs. per cent. Blood Kolmer and Kline tests negative. Spinal Fluid (7-18): clear; 53 cells per cu. mm.; 95 per cent lymphs, 5 per cent polys; globulin 2 plus; sugar 1 plus; no sediment after centrifuging for 1 hour; Colloidal Gold 0011211000; spinal Kolmer and Kline tests negative. X-ray of chest (7-20): see chart. On 7-19, blood Widal, X-19, Para A negative; Para B positive 4 plus. On 7-23, blood Widal, X-19, Para A and Para B, all negative.

Course: Temp. fell to 100.6 on 7-20, but generally remained fairly constant at 103-104. Pulse generally followed temp. curve on chart, although slightly lower usually 120-130. Resp. 22-44, no conspicuous change throughout. BP on 7-19 was 80/62. Digitalis given with no effect on pulse or blood pressure. Chest findings remained the same. No new developments noted, and patient died on 7-24 at 4:55 P.M.

Dr. Robert Wilson, Sr.: Mr. Zeigler, will you open the discussion?

Student Zeigler: The history is one of continuous fever, with chills, for seven weeks before admission. This alone suggests malaria, typhoid fever, and tuberculosis. Seven weeks seems remarkably long for a case of typhoid fever or of malaria, and on the basis of the history alone, tuberculosis seems the most likely.

The examination shows fever, a rapid pulse,

and hypotension. He was poorly nourished. The pulmonary findings are very indefinite but suggest tuberculosis slightly. The spleen was not enlarged; the spleen would certainly have been palpably enlarged after seven weeks of malaria, and would very probably be palpable after seven weeks of typhoid fever. If this were a case of malaria, it would probably be of the estivo-autumnal type, because of the prominent cerebral symptoms; certainly the spleen would have been enlarged at this stage of estivo-autumnal malaria.

The symptoms and findings referable to the nervous system are somewhat indefinite. Pupillary findings, speech defect, and tremors all appear to have been questionable from the record. The reflexes were inconclusive. Even the positive Romberg is open to question in one who has been ill so long.

The lung findings and the apparent toxemia suggest tuberculosis, and he is so ill that I suspect miliary tuberculosis. This is made even more likely when the spinal fluid findings are studied. The count was 53 cells per cu. mm., and the lymphocytes predominated. This, with the globulin and sugar changes, suggests meningitis, or possibly meningismus. I believe that syphilis of the central nervous system can be ruled out on the basis of the negative blood and spinal fluid serological tests.

The four-plus agglutination with paratyphoid B seems to me to be an obvious error, in the light of the negative test a few days after the first.

Dr. Wilson: Did anything develop during his stay in the hospital that might give us a lead in the diagnosis?

Student Zeigler: No, the chest findings and the cerebral state apparently remained unchanged. The failure of digitalis to affect the pulse rate and the blood pressure does not seem significant to me.

Dr. Wilson: Mr. Carnes, what do you think of the case?

Student Carnes: To me the long history of fever, the pulmonary findings, and the spinal fluid, all point to tuberculosis, probably a miliary tuberculosis. The toxic condition which the patient presented must have overshadowed the meningitis, as there is nothing on the clinical

part of the record to suggest meningitis rather than meningismus.

Dr. Wilson: How do you explain the failure of digitalis to improve the heart action?

Student Carnes: In toxic conditions of the heart, digitalis does not slow the pulse rate; and when the pulse rate is not slowed, the blood pressure would not be affected. I believe that the heart condition present was a myocardial degeneration from the toxicity.

Dr. Wilson: Mr. Scott, what is your viewpoint?

Student Scott: The history of fever, the pulmonary findings, and the spinal fluid all tie up with miliary tuberculosis. I believe that we can rule out typhoid fever on a basis of a negative Widal after seven weeks.

Dr. Wilson: Usually that is true, but an occasional case will show a negative Widal reaction for even longer than that.

Student Scott: The spinal fluid is also somewhat suspicious of lues, but I would discard that possibility on the basis of the negative Kolmer and Kline tests in the blood and spinal fluid.

Dr. Wilson: Does anyone else have any comments to make?

Student Wilson: In a case last year which showed diffuse signs referable to the central nervous system, Dr. Chamberlain made a diagnosis of encephalitis, because a diffuse process in the brain seemed to be the only thing that could explain all the features of the case. To me the most probable diagnosis in this case is tuberculosis, but I believe the vague neurological history and findings, including the spinal fluid, should make us consider the diagnosis of lethargic encephalitis.

As far as the digitalis is concerned, I think that either enough digitalis to affect the pulse rate was not given, or else the myocardium was too weak to respond to the stimulation.

Student Durst: From the record I can see no indication for the administration of digitalis. Furthermore, not knowing how much he was given, or for how long, we cannot interpret the lack of effect on the pulse rate. Digitalis acts from an accumulated action; and if he died before sufficient digitalis could be accumulated, certainly that would not be important in the case.

Dr. Chamberlain: When a patient is as sick as this, certainly a positive Romberg test is of no significance. I would hardly expect him to be able to stand at all. The test is a test for proprioceptive powers, and here it seemed to have shown merely weakness. As to the failure to elicit the left knee jerk, I think we must be equally cautious in interpreting that sign. If the patient was so spastic that it could not be obtained, I would disregard that; if the patient is relaxed and cooperative, the failure to elicit the reflex is more significant. In this case all the other reflexes were hyperactive, I take it, and I would feel inclined to disregard this one reflex which does not fit the rest of the picture.

This patient has been sick for some time with fever and has finally become disoriented. The spinal fluid contained 53 cells, 95 per cent of which were lymphocytes. To me that is very significant. It cannot be explained on a basis of meningismus; that many cells indicate an inflammatory state in the brain or meninges. Meningismus at best is a sorry term, used to indicate that a patient had symptoms referable to the brain or meninges, but that there is nothing pathologically to explain the symptoms. In that condition the spinal fluid pressure may be increased, but the cells should not be increased to this high level.

As Mr. Wilson has pointed out, encephalitis could cause the symptoms and findings which this case presents, but tuberculosis would seem more likely.

Dr. Wilson: I think that it is still true in this part of the world that long continued fevers are apt to be either typhoid fever, malaria, or tuberculosis. The course is almost too long drawn out for typhoid fever. The spleen should have been enlarged after seven weeks of malaria. The whole picture in this case fits in better with tuberculosis. The findings referable to the nervous system are variable, but the spinal fluid seems to be further evidence of tuberculosis.

I asked the question about digitalis therapy advisedly. As Mr. Durst has pointed out, digitalis is not indicated in the rapid pulse rate of fevers, because it does no good; hence the failure of digitalis to affect the pulse rate is of no significance in this case.

May we see the X-ray?

Dr. Lynch (demonstrating X-ray film): Dr. Rudisill's report says that there is slight clouding in both apical fields, but that the detail is too poor in these portable films for him to distinguish between tuberculosis and pneumonia.

Dr. Wilson: If we are hesitating between tuberculosis and pneumonia, we can be fairly certain that it is tuberculosis. The patient has certainly not been suffering from pneumonia this long; so if he has pneumonia, it is a terminal affair. And terminal pneumonia is seldom apical.

Dr. Lynch: At autopsy this patient had a small cavity in the right upper lobe; even in retrospect I cannot find a cavity in this film. Nor does the X-ray show the multitude of miliary tubercles which were widely scattered throughout both lungs at autopsy.

That small cavity in the right lung appeared at autopsy to be the oldest lesion in the body, and it is likely that the generalized tuberculosis which this patient showed arose from this lesion.

This man also had Addison's disease: tuberculosis of both suprarenal glands.

Dr. Wilson: Allow me to differ with the Professor of Pathology; the tuberculosis of the suprarenal glands which occurs in miliary tuberculosis does not produce Addison's disease.

Dr. Lynch: I think that Dr. Wilson misunderstood me; the disease of the suprarenal glands in this case was not primarily a miliary tuberculosis, although miliary tubercles were also present. The adrenal glands showed a chronic destructive tuberculosis of the exact type usually seen in Addison's disease. Clinically he had the hypotension which is usually present in such cases, but the rest of the usual clinical picture was probably obscured by his more acute and more toxic illness. His suprarenal disease was Addison's disease, and it antedated the acute miliary tuberculosis by quite some time.

This patient had another chronic manifestation of tuberculosis which is even more interesting, because we frequently hear about it but almost never see it: tuberculosis of the thoracic duct. Here you see (demonstrating autopsy specimens) the thoracic duct dissected out.

In the mid-thoracic portion of the duct, where it was firmly attached to diseased lymph glands, the duct itself is occluded by a fibro-caseous tuberculous process. The process here is much older than the generalized miliary tuberculosis, and it is very likely that the miliary tuberculosis of the lungs resulted from the spilling of tubercle bacilli into the thoracic duct, whence they would pass into the left innominate vein, the superior vena cava, and through the right side of the heart into the pulmonary circulation, to cause miliary tuberculosis there. This illustrates one means by which bilaterally miliary tuberculosis of the lungs may occur.

In this case there was also a generalized

miliary tuberculosis of all organs. There was a small tubercle in the choroid plexus of the meninges, and there was some exudation over other portions of the meninges, without well-defined lesions elsewhere. This is probably the usual means of infection of the meninges: a single tubercle, frequently in the choroid plexus, from which tubercle bacilli can be passed into the cerebrospinal fluid.

The case, then, was one of chronic pulmonary tuberculosis, chronic tuberculosis of the suprarenal glands (Addison's Disease), tuberculosis of the thoracic duct, and generalized miliary tuberculosis.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

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Dr. George Bunch	Columbia, S. C.
Dr. W. B. Ward	Rock Hill, S. C.
Dr. Roderick MacDonald	Rock Hill, S. C.

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President-Elect, Mrs. Jesse O. Wilson	Spartanburg, S. C.
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Second Vice President, Mrs. C. C. Ariail	Greenville, S. C.
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Mrs. Richard Baker	Sumter, S. C.

STATE CHAIRMEN

Student Loan Fund, Mrs. L. O. Mauldin	Greenville, S. C.
Student Loan Fund, Co-Chairman, Mrs. C. P. Corn	Greenville, S. C.
Student Loan Fund, Treas., Mrs. Warren White	Greenville, S. C.
Jane Todd Crawford Mem., Mrs. Riddick Ackerman	Walterboro, S. C.
Public Relations, Mrs. H. E. Mason	Spartanburg, S. C.
Publicity, Mrs. Jenkins Mikell	Columbia, S. C.
Hygeia, Mrs. W. C. Abel	Columbia, S. C.
Historical, Mrs. H. M. Stuckey	Sumter, S. C.

REPORT OF STUDENT LOAN FUND COMMITTEE 1935-1936

Convention 1936, Greenville, S. C.

At the end of one year of service the Chairman of the Loan Fund Committee comes to give an account of their care of this child of the Auxiliary. When you placed it in my hands in 1935, I took it because I was vitally

interested in the work and because I have loved it from the beginning. The great joy of this particular work is the knowledge that you are able to give help directly and see the results. First, I wish to give you a report of the year's work.

A committee meeting was held February 4, 1936, in Greenville. It was well attended, and much was accomplished. Rules controlling the Loan Fund were adopted. A copy has been furnished your Auxiliary Loan Fund Chairman, and we ask her to read them to the members of your Auxiliary, so that you may keep in touch with the work.

The committee has received in repayment from Mr. T. E. N. Jefferies \$110.00 since May 1935, paying \$10.00 each month. He is very prompt with his payments.

April 21, 1936, Student Loan Fund Committee awarded a four year scholarship, by a unanimous vote, to Mrs. Robert L. Moore of Columbia.

Today we have a "sure-enough" Loan Fund. At the convention meeting in Greenville April, 1931, the Student Loan Fund was established for the purpose of giving aid to deserving sons and daughters of doctors who are or have been members of South Carolina Medical Association.

Realizing that an objective was essential for the good of the Auxiliary, your chairman, then the President, recommended the Student Loan Fund as a solution. The recommendation was adopted, and the Greenville Auxiliary started the Fund by giving \$25.00. York also contributed \$5.00. This was the starting point.

The first committee was composed of a chairman, who was Mrs. W. A. Boyd, of Columbia; and one member from each Auxiliary.

In April, 1932, it was decided to have a Loan Fund Treasurer and Co-chairman. Mrs. J. W. Bell was elected Treasurer and Mrs. L. O. Mauldin, Co-chairman, to serve three years.

One scholarship was awarded Mr. T. E. N. Jefferies in 1933-1934 of \$250.00 to attend Medical School. Since that time he has been unable to return because of financial reverses.

Collections in 1931-32 amounted to --\$	292.00
In Bank 1932-33 -----	328.00
In Bank 1933-34 -----	333.38
Scholarship to T. E. N. Jefferies ---	250.00

Total collected 1935 -----	569.46
Total in bank 1936 -----	1,083.62

The Auxiliary members have been so faithful and generous, and I am sure they will continue to be, because I believe they are all, or almost all, interested in this particular work. And it is a work that any group should be proud to do, that of helping a boy or girl to fit himself or herself for the greatest life work.

This report would not be complete without an expression of thanks also to my Committee, and especially to Mrs. C. P. Corn, my Co-chairman, and Mrs. J. W. White, Treasurer. Without them I could not have carried on this work.

Respectfully submitted,

Mrs. L. O. Mauldin,

Student Loan Fund Chairman

Mrs. C. P. Corn, Co-chairman.

THE FOLLOWING RULES FOR STUDENT LOAN FUND WERE ADOPTED:

1. That the Student Loan Fund be used for students attending South Carolina Medical College as long as it is a grade "A" school.

2. That applicant's junior and senior year of college be fully investigated as to scholarship, and his scholarship be of high standing—at least "C" grades.
3. Only resident sons and daughters of physicians who are or have been members of South Carolina Medical Association are eligible for benefit of this fund.
4. A detailed application on a form supplied by the Student Loan Fund Committee is required of all who desire loans. Such application must be accompanied by two letters of recommendation as to character and integrity, by records of preparatory work, and by a physician's statement of applicant's sound health.
5. The maximum loan allowed to one student in one year is \$250.00. A note, satisfactorily endorsed, must be given for each separate amount received. \$1,000.00 to be the maximum loan to one student, and not establish an additional scholarship until the \$1,000.00 completion of the one before.
6. No interest charged.
7. Repayment shall be made at rate of ten dollars (\$10.00) per month, beginning one year from date of graduation or completion of professional training. Any borrower leaving college before graduation for other than providential causes, shall begin repayment in three months after date of leaving.
8. The College shall report student's progress to the Chairman of the Loan Fund Committee at the end of each semester. Loan may be discontinued at any time to any student whose work or conduct becomes unsatisfactory.
9. Every borrower of this Fund shall keep the Chairman of the Committee informed of any changes in address, so long as any part of his indebtedness to the Fund remains unpaid.
10. All applications for loan must be in hand of Chairman of Loan Fund by March 1st.

RULES GOVERNING THE STUDENT LOAN FUND COMMITTEE OF THE WOMAN'S AUXILIARY TO THE SOUTH CAROLINA MEDICAL ASSOCIATION

1. The personnel shall consist of the Chairman, Co-chairman, the President, President-elect, and the Student Loan Fund Chairman of each Auxiliary.
2. A. The election of the Chairman and Co-chairman of the Student Loan Fund shall be in the House of Delegates.
B. The Chairman and Co-chairman of the Student Loan Fund shall serve four (4) years.
C. There shall be a Treasurer for the Student Loan Fund, elected in the same manner as the Chairman and Co-chairman to serve four (4) years.
3. The Secretary shall be appointed by the Chairman.

4. Each Auxiliary to make pledge for Student Loan Fund at the State meeting if possible.
5. Student Loan Fund Committee to be self-supporting.
6. There shall be one Committee meeting, called by the chairman during the year, and one meeting prior to the House of Delegates.

SELECTION OF STUDENT

1. The student shall be selected by the Student Loan Fund Committee according to the rules.
 - A. Voting shall be by ballot only.
 - B. All sessions of this Committee shall be private except when the Chairman is unable to attend, and an authorized appointee is sent in her place.
 - C. No student or relative of student is allowed to attend.

OCONEE COUNTY MEDICAL AUXILIARY

The Woman's Auxiliary to the Oconee County Medical Society met at the home of Mrs. E. A. Hines, Seneca, S. C., Wednesday, January 13, 1937. Mrs. E. C. Doyle, the President, presided. A large number of members were present.

During the business session the following officers were elected to serve for 1937: Mrs. V. W. Rinehart, President, Walhalla, S. C.; Mrs. J. T. Davis, Vice President, Walhalla, S. C.; Mrs. Harold Brennecke (reelected) Secretary-Treasurer, Walhalla, S. C.; Mrs. S. H. Ross, Jr., Publicity Chairman, Seneca, S. C. The delegate and alternate to the State Medical Convention to be held at Columbia in April will be elected at the March meeting of the Auxiliary.

Mrs. E. C. Doyle read the report of Mrs. C. P. Corn, delegate from South Carolina to the meeting of the Woman's Auxiliary to the Southern Medical Association held in Baltimore, Maryland, November 17th to 20th, 1936. A few biographical sketches of doctors from the History of Doctors of Oconee County was read by one of the members. This history is being compiled by Mrs. E. C. Doyle but is not yet completed. Dr. E. A. Hines, Secretary of the Oconee County Medical Society, closed the program with a talk about the new Oconee County Hospital now being erected.

The Society then adjourned for a social hour during which time a delicious sweet course was served.

GREENVILLE COUNTY MEDICAL AUXILIARY

The Greenville County Medical Auxiliary met at the home of Mrs. C. C. Ariail on Augusta Street, Greenville, S. C., Monday, January 11, 1937.

The meeting was an unusually enjoyable one with a splendid program. Dr. Pollitzer gave a delightful paper on "Pestilences, Past and Present." Miss Harriet Boggs delighted the Auxiliary with a violin number, accompanied by Miss Margaret Vogel at the piano. Both are talented musicians.

There were a number of visitors present and a large attendance from the Auxiliary. The hostess, Mrs. Ariail, invited her guests to stay for a delightful social hour with lovely refreshments.

COLUMBIA MEDICAL AUXILIARY

The January meeting of the Woman's Auxiliary to the Columbia Medical Society was entertained by Mrs. Arthur Shaw and Mrs. Graham Shaw at their home on Hampton street. The forty members who attended the meeting were greeted at the door by the hostesses.

At the business session the Auxiliary voted to purchase a tuberculosis bond. Plans for the convention of the South Carolina Medical Association to be held in April in Columbia were discussed.

After the business session, tea, sandwiches, and cakes were served in the dining room by the hostesses, assisted by Mrs. Whitfield Cheatham, Mrs. Charles Epting, Mrs. Charles Lide, Mrs. Lewis Pitts, Mrs. Henry Timmons, Mrs. I'On Weston, and Mrs. Foster Routh.

COASTAL MEDICAL AUXILIARY

The Auxiliary to the Coastal Medical Society held its December meeting at the home of Mrs. Carroll Brown, Walterboro, S. C. Five members were present, and Miss Frankie Humphrey, County Health nurse, was a guest.

of the Auxiliary. Mrs. Adolph Ritter, the President, presided, and the usual order of procedure followed the roll call and committee reports.

Plans for raising a contribution to the student loan fund were discussed. The fund is available through the State Auxiliary to Medical College seniors who are eligible to apply for a loan.

Mrs. Riddick Ackerman gave a report on the activities of members attending the annual meeting of the Southern Medical Association which was held in Baltimore in November.

During the hour devoted to the program Mrs. Brown played "Au Mer" by Schubert-Liszt on the piano, and Mrs. Ackerman told the story of Jane Todd Crawford, the dauntless patient who cooperated with our pioneer surgeon, Dr. Ephraim McDowell, in opening up the vast field of abdominal surgery.

Mrs. C. H. EsDorn gave an interesting account of her trip abroad last summer and the very pleasant visit to her childhood home in Arendal, Norway, "the land of the midnight sun." She gave a vivid description of the magnificent mountain scenery, the mirror-like lakes, and the arresting beauty of the fjords of Norway. She told of the charm of the many European cities visited and used pictures to illustrate her talk.

After a Dutch luncheon at the Lafayette Grill the meeting adjourned.

SPARTANBURG MEDICAL AUXILIARY

The regular monthly meeting of the Woman's Medical Auxiliary of Spartanburg was held on Monday afternoon, November 23, at the home of Mrs. Jesse O. Wilson. After the business session Mrs. Mary H. Phifer gave an interesting program in memoriam to Jane Todd Crawford, of Rockbridge County, Kentucky, who is the heroine of abdominal surgery and submitted to an operation for the removal of a tumor in 1809, before an anesthetic was dreamed of. Dr. Ephraim McDowell was the name of the doctor who first performed this operation. Contributions were made by the members of the Auxiliary for a monument which is to be erected in her memory. During the social hour which followed the program the hostess served delicious refreshments. The members of the Auxiliary welcomed a new member, Mrs. D. L. Smith, Jr., whose marriage took place in October. Dr. Smith is associated with his father, Dr. D. Lesesne Smith.

Mrs. P. A. Smith,
Publicity Chairman.

Mrs. S. A. Griffith, of New Brookland, S. C., widow of Dr. S. A. Griffith, who was for a while Mayor of Columbia and a native of Lexington County, donated to the Ridge Medical Society the surgical instruments and the medical library of her husband. It is understood that the reputable doctors of the counties of Lexington, Edgefield, and Saluda may use them. They have been put into the custody of Dr. W. P. Timmerman, Batesburg, S. C.

Syphilis control has been launched on a broader scale in South Carolina, as a result of the allocations to the State through the United States Public Health Service of social security funds with which to conduct the program. Dr. Sedgwick Simons, who has been with the State Board of Health for about ten years, serving as a County Health Officer in several counties,

will conduct this work. Dr. Simons will make his headquarters in Columbia and will work under the direction of the State Board of Health. The South Carolina Medical Association will cooperate in the extension of this work.

Forty patients were examined at the crippled children's clinic held at the health center at Kingstree, S. C., January 23, 1937. These cases were from every part of Williamsburg and Clarendon Counties. Dr. Adelbert Hoshell of Charleston was the surgeon in charge. Doctor Hoshell is Orthopedic Surgeon for the Charleston District of the Division of Crippled Children for the State Board of Health, in addition to his work as instructor of orthopedics at the Medical College of the State of South Carolina.

DERMATOLOGY AND SYPHILOLOGY

BY J. R. ALLISON, M.D., COLUMBIA, S. C.

DERMATOLOGY AND SYPHILOLOGY
THE TREATMENT OF HERPES
ZOSTERPillsbury, D. M., and Fonde, G. H.,
Med. Clin. North Am., July, 1936*By John M. van de Erve, M.D.,*

Charleston, S. C.

While herpes zoster or "shingles" is supposedly more common in the spring and summer months, the problem is perennial. In this article the authors review the various methods of treatment. The usual procedure of using calamine lotion locally and the use of salicylates internally for the pain, occasionally reinforced with codeine in severe cases, is here commended. But several of the newer procedures are of definite value in many cases for the earlier abortion of the condition. Among these is the recommended use of obstetrical pituitrin in 0.5 cc. doses intramuscularly on the first and

second days, and 1.0 cc. every third day for a total of four doses. This is often effective in allaying discomfort and pain, but the patient should be warned that abdominal cramping may follow the injection.

When pituitary extract is not effective, the administration of 10 cc. of whole blood taken from the vein in arm and injected into the gluteal muscle is of value.

In the ordinary cases, the other measures recommended (X-ray, diathermic heat over the ganglia involved, and neo-arsphenamine injections) are preferably not utilized.

It has been found that the use of the common infra-red heat lamp is of much value in the allaying of pain and neuralgia either accompanying or following the attack.

The patient should not be given too optimistic a prognosis (the usual statement—"This eruption will be completely gone in 10 days") since neuritis may follow the clearing of the condition and may prove quite troublesome.

MINUTES OF THE MEETING OF THE
CENTRAL COMMITTEE ON THE PRE-
VENTION AND CONTROL OF
SYPHILIS IN SOUTH CARO-
LINA, COLUMBIA, S. C.,
JANUARY 14, 1937

In accordance with plans previously perfected by Dr. James A. Hayne, State Health Officer, the initial meeting of the Central Committee for the control of syphilis in South Carolina, as called by him, was held in the private office of Dr. Hayne on the afternoon of Thursday, January 14, beginning at 2:15.

Among those present upon this occasion were Dr. R. C. Bruce, of Greenville, President of the State Medical Association; Dr. James A. Hayne, State Health Officer; Dr. Ben F. Wyman, Director of Rural Sanitation and County Health Work; Dr. J. E. Boone, of Columbia; Dr. Robert Wilson, Jr., of Charleston, members of the Central Committee; and in addition, Dr. E. A. Hines of Seneca, Secretary of

the State Medical Association; Dr. F. M. Routh, Chairman of the Executive Committee of the State Board of Health; Dr. H. Grady Callison, Director of Training Unit; Dr. Robert E. Seibels, of Columbia; Dr. G. E. McDaniel, Epidemiologist; Dr. H. M. Smith, Director of the State Hygienic Laboratory; Dr. Harry F. Wilson, Director of the Division of Industrial Hygiene; and Dr. Sedgwick Simons, Syphilologist.

Immediately prior to the commencement of official proceedings Mr. O. Frank Hart, Masonic Grand Master of South Carolina, appeared before the assembly and with them perfected arrangements for the laying of the corner stone of the new building at State Park by the Masonic Order of South Carolina, and it was agreed that such a ceremony would take place on the afternoon of April 14 during the course of the annual meeting of the State Medical Association.

In accordance with the purpose of the meeting, Dr. Hayne submitted to the group present

a tentative outline of program for the control of syphilis in South Carolina, as prepared by him, for their consideration. With due thought and consideration, embracing a limited amount of discussion as to advisable amendments or additions to a few component headings as set forth in the outline of the program, the said plan was duly adopted. Throughout the proceedings a spirit of wholehearted interest, cooperation, and congenial thought was strikingly evident, and such proceedings were perfected with spirit and orderly dispatch.

With Dr. Bruce presiding, Dr. Hayne presented each topic of the proposed plan in turn, and with suitable explanatory remarks presented the same for consideration.

Under the question of "set-up," it was proposed by Dr. Hayne and duly agreed upon that it be recommended to the House of Delegates that the Central Committee be a permanent one, and this was duly agreed upon. Dr. Bruce suggested that the respective number of years to be served by the several members of the committee might be decided upon and specified by the President of the State Medical Association.

Dr. Hayne next proposed that in those counties not having medical societies the president of the district society, or the President of the State Medical Association, might appoint such local committees, consisting of three physicians each, and this was duly seconded and carried.

At this point Dr. Robert Wilson, Jr. suggested that the word "venereal" used in connection with the name of the committee and with the name of the disease "syphilis" be altogether abandoned, and Dr. Hayne further discussed this question in which he agreed with him and moved that this committee be known and designated as "The Committee on the Prevention and Control of Syphilis." This motion was duly seconded and carried.

The plan of a state-wide survey to determine the incidence of syphilis in this state, presented by Dr. Hayne, as appearing under the various sub-headings of this topic, was discussed. The entire section was duly seconded and carried.

As concerns the method of administration of drugs to be distributed in the treatment of syphilis, Dr. Hayne and Dr. Wyman clearly brought out the idea that only neosarsphenamine,

bismuth preparations (water soluble, and in oil), and mercury be recommended by and furnished by the state for distribution through state and county agencies, and that preparations other than these should not be distributed for the reason that sufficient time has not elapsed, in the case of the latter, to prove the effects upon the human system or in which general use does not appear generally applicable at the present time. Dr. Hayne clearly enunciated the fact that all drugs recommended should be distributed free by the state for the benefit of both pay-patients as well as indigents, and under the question of mercury he suggested the recommendation of the ointment exclusively. This was not voted upon, but was unanimously agreed to. It is, of course, understood that the supply of the above specified group of therapeutic agents would be distributed free of charge, provided that sufficient public funds be made available for the purpose through the Social Security Act.

Dr. Wyman advised that the Central Committee be authorized and directed to formulate general principles of treatment, as well as a standard minimum course of therapy, and Dr. Seibels suggested, concerning this, that a sub-heading specifying this should be included in the written plan, and advanced the idea that written instructions should always be included with drugs.

As regards the reporting of cases by physicians, this question was generally discussed, principally by Dr. Routh, Dr. Robert Wilson, Jr., and Dr. McDaniel, and it was finally agreed upon that reports were to be made by serial number, or by name, together with certain analytic data, as age, sex, race, etc. Furthermore, for the purpose of expediting records of reports for attending physicians and the Board of Health, it was decided that suitable cards and sheets (in book form, providing carbon copies) should be furnished each physician. In any event, the physician would maintain a record of the name, as well as the serial number, of any given case on his office record, so as to facilitate the follow-up of patients lapsing in treatment.

The matter of education, by the State Board of Health furnishing appropriate educational facilities, was agreed upon without any dis-

cussion whatever, as well as the matter of the follow-up of cases by county health nurses and other appropriate personnel.

A discussion arose over the question of Diagnostic Clinics being established and maintained by the State Board of Health. The suggestion was made that all Diagnostic Clinics, maintained by the State Board of Health, be limited to securing blood for serological tests and serum (from lesions) for dark field examinations. This work would be limited to the known indigents and all cases referred by practicing physicians. The question was finally submitted to the Central Committee for their decision.

Under "prophylaxis," Dr. Hayne advanced the question as to whether or not the State Medical Association be asked to decide whether or not the State Board of Health should sponsor the sale of prophylactic agents, also whether prophylaxis of syphilis should be advised at all. Dr. Robert Wilson, Jr., responded with the idea that the State Board of Health and the State Association should endorse the idea of prophylaxis. This was agreed upon without vote, together with the idea that a sound, suitable, and generally applicable course of instruction on prophylaxis should be disseminated by the Board of Health.

As regards laboratory facilities, Dr. H. M. Smith assured the group that he was of the opinion that dark field examination of specimens forwarded to the laboratory from outside sources would be of sufficient value to warrant its general use, and that the laboratory would cooperate in the fullest degree. In this connection he emphasized the necessity of additional space and equipment.

Finally Dr. Hayne explained that, in the matter of training of health officers and others in the diagnosis and treatment of syphilis, they would be sent to suitable clinics for such purposes.

There being no further business, the meeting duly adjourned.

Respectfully,

Sedgwick Simons, M.D.,

Acting Secretary.

TENTATIVE PLAN OF PROGRAM FOR THE CONTROL OF SYPHILIS IN SOUTH CAROLINA

I. Set-up:

A. A permanent central State Committee consisting of five members of the South Carolina Medical Association to be appointed by the President of the said Association, and the respective number of years per term to be served by the several members also to be decided by the President of the State Association.

B. In each county a committee consisting of three members of the respective county medical society, the several members to be appointed by the president of the respective county medical society. In those counties not having medical societies the president of the respective district society, or the President of the State Medical Association would appoint such local committees of three members each. However, each and every county committee would report results of their proceedings as to recommendations to the Central Committee.

II. A state-wide survey to determine the number of cases of syphilis in South Carolina (by Health Officers and by other specially appointed personnel).

A. Through various penal institutions.

B. Through various charitable institutions.

C. Through various educational institutions.

D. Through pre-natal clinics and by physicians in private practice.

E. Through localized surveys of selected groups of individuals in different portions of the state (rural).

III. Distribution of arsenicals, bismuth preparations, and mercury:

The state to furnish, through state and county health agencies, and by free distribution, only the above types of therapeutic agents for the treatment of all persons found to be infected with syphilis, pay-patients as well as indigents, and such agents shall be neoarsphenamine, bismuth preparations (water soluble, and in oil), and mercurial ointment. Preparations other than these listed shall not be distributed free by state or county agencies, that is, those in which sufficient time has not elapsed in which to prove their effects upon the human system or in which general use does not appear universally applicable. Furthermore, the Central

Committee should be authorized and directed to formulate general principles of treatment together with a standard minimum course of therapy, and such information as well as suitable instructions governing the uses and dangers of the drugs should always be furnished with the drugs.

IV. The part to be played by the State Board of Health:

A. Reporting:

1. This shall be done by a special card, or sheet, for each case upon which shall appear the serial number of the given case, together with the age, sex, race, marital status, and the duration of infection when first seen. Furthermore, and in order to facilitate such work, each physician shall be furnished with a duplicate numbered book with detachable sheets, which would provide carbon copies for the physician's office records, and upon the carbon copy should appear the name, as well as the serial number, of the respective case.
2. Report records shall be forwarded by the physicians directly to the county or district health officer in his respective jurisdiction, which health officer shall, in turn, promptly make records of and forward such records to the State Board of Health.

B. Education: The State Board of Health shall furnish all educational facilities.

C. Diagnostic Clinics: Upon reference by the Central Committee to the House of Delegates of the South Carolina Medical Association, it is suggested that operations of diagnostic clinics be limited to the securing of blood for serological testing and serum (from lesions)

for dark field examination of only indigent cases or others referred by practicing physicians; furthermore, that the question of desirability of the establishment and maintenance of diagnostic clinics be left to the individual county.

D. Follow-up of cases by county health nurses and other specially designated personnel.

E. Prophylaxis: The State Board of Health and the State Medical Association shall indorse and sponsor the idea and the practice of prophylaxis for syphilis, and shall outline a suitable course for such practice.

F. Laboratory facilities:

1. Dark field examinations

2. Serological tests

G. The suitable training of health officers and others in the prevention, diagnosis, and treatment of syphilis.

The Journal has information to the effect that there appears to be a good opening for a doctor at Society Hill, S. C. Incidentally, there has recently been established a manufacturing plant there employing a good many people.

Dr. and Mrs. C. C. Horton, of Pendleton, had as their guests Mrs. Horton's parents, Mr. and Mrs. T. T. Hughes, of Greenville, several days during the month of January.

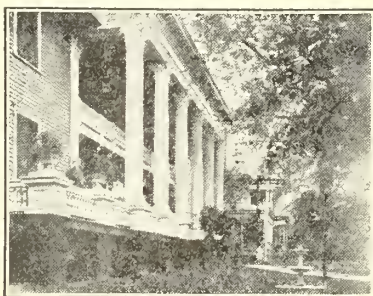
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THE PATHOLOGICAL GRADING OF MALIGNANT TUMORS

By

THOMAS M. PEERY, M.D.,
*Medical College,
Charleston, S. C.*

Ever since the beginning of the accurate study of malignant tumors and the keeping of accurate clinical records, it has been known that similar tumors in different individuals frequently run entirely different courses. To illustrate, one patient may have a cancer of the lip for as long as ten years or more, and the tumor still remain localized, while another may have a cancer on the same portion of the lip, beginning in the same way, but progressing so rapidly, and metastasizing so early, that death occurs within the year.

Similarly, pathologists have long known that cancers of the lip vary a great deal in their microscopic appearance, and have been accustomed to think of some tumors as being potentially more malignant than others, because they showed more of the features that serve to differentiate malignant from benign tumors. But it remained for Broders(1), in 1920, to classify his histological material from biopsies of cancer of the lip, and then to study the course of the tumors after treatment, before the importance of tumor grading was fully realized. Broders studied 537 cases of cancer of the lip, dividing them into four grades of malignancy on a histological basis, and then studied the records of these cases, most of which had been followed for five to eight years. He found that 90 per cent of the Grade I (low-grade) carcinomas of the lip were successfully

treated, while 62 per cent of the Grade II, 25 per cent of the Grade III, and only 10 per cent of the Grade IV cases had a good result. Subsequently Borders' work has been amply verified, and the idea of grading malignant tumors has been extended to cancers of the breast(2), the cervix(3), the gastro-intestinal tract, and other locations.

It is important to point out the difference between the histological and the clinical grouping of tumors. The clinician examines his case, finds, possibly, extensive local infiltration and distant metastasis. To the clinician the tumor is far advanced, the patient is doomed, and, speaking in terms of the patient's outlook for life, the tumor could be called highly malignant. Yet histologically that tumor may be a low-grade malignancy. The pathologist is speaking in terms of potential malignancy, a quality that is inherent in the tumor cells themselves; the clinician is speaking in terms of actuality—not what the tumor can do, but what it has done over a period of time. The failure to realize the difference between the pathologist's and the clinician's grouping of tumors is the cause of frequent arguments.

The actual grading of malignant tumors, as the pathologist practices it, is based upon fairly definite features of the tumor cells and their environment. Everything which the pathologist must note for grading can be summarized by the term "differentiation." In normal epithelial tissues, mature epithelial cells are present in a given ratio to supporting tissues; in benign tumors the cells are multiplied so as to give tumefaction, but the cells themselves are still mature; in the malignant tumor, various proportions of the cells of the tumor are differentiated into mature cells while others remain immature. The principle of grading is based

From the Department of Pathology, Medical College of the State of South Carolina, and from the Tumor Clinic Committee of the Roper Hospital Cancer Clinic.

upon an estimation of the ratio of mature to immature cells within the tumor. In Broders' (4) classification, a Grade I carcinoma contains 75-100 per cent mature or differentiated cells; a Grade II has from 50-75 per cent differentiated cells, a Grade III from 25-50 per cent, and a Grade IV from none to 25 per cent mature cells.

The completely differentiated cell is usually smaller than the undifferentiated cell, its nucleus is absolutely smaller and also smaller in proportion to the amount of cytoplasm. The chromatin material in the nucleus of the mature cell is scant as compared to that in the malignant cell, where the chromatin is prominent and granular and stains deeply—the "hyperchromatic nucleus." The nucleolus of the mature cell is small if seen at all; in the malignant tumor it is usually visible and quite large. The presence of mitoses is also important. In the normal process of cell destruction and cell repair there must necessarily be cell division, but in normal tissues mitotic figures are so scant that they are seldom noted. On the contrary, in malignant tumors the prime function of the cells seems to be cell division and multiplication, hence mitotic figures are very numerous and conspicuous, frequently showing a disorderly process of division ("atypical mitosis") such as is never seen in the normal, healthy cell.

These differences have been applied particularly to the epidermoid carcinoma, because the criteria in that group are more definite. But the same general rule holds true throughout the whole field of tumors. The low-grade adenocarcinoma will form definite gland tubules, and the lining epithelium of the tubules will secrete mucus or other material, while the more malignant tumors of this order will show no gland formation and no evidence of secretion.

It is on the basis of cell maturation, or the lack of it, then, that a tumor is graded. But what is the practical application of the histological grading of tumors? It is this: knowing the potentialities of the cells of a particular tumor, we know more definitely what to do—and what we need not do—in the treatment of the case. A grade I epidermoid carcinoma of the skin shows little or no ten-

dency to metastasize; if metastasis does occur it is very late in the course of the disease. Hence there is no need for an extensive and mutilating lymph gland dissection, as the local removal of the tumor itself will almost always result in a cure. On the other hand, a Grade IV carcinoma of the skin will frequently not need a radical dissection because it will do no good—the malignant disease extends rapidly beyond the reach of the surgeon. By not operating on such a case, and by resorting to palliative measures or to irradiation, the patient may be saved considerable suffering and discomfort. In the mid-ground, the Grade II and Grade III carcinomas of the skin are logical candidates for radical lymph node dissection.

The histological grade is also of importance in prognosis. Broders believes that the grade of malignancy is by far the most important factor to be considered in prognosis. When the clinician combines his knowledge of the local extent of the tumor, the presence or absence of metastasis, the age and general condition of the patient, with a knowledge of the cell potentialities, as expressed by the pathologist, he has sure ground on which to give a reasonably accurate prognosis.

There is also the other practical application, that the grading of tumors is a guide to radiation therapy. The ray-sensitivity, as expressed by most pathologists, is not synonymous with the histological grade. While the response to irradiation does depend to a great extent upon the mature or immature character of the tumor cell, it depends even more on the nature of the tumor itself. To state that a tumor will respond to irradiation it is first of all essential that the pathologist classify the tumor as to its tissue origin. To illustrate: a lymphosarcoma, although composed of cells which may appear histologically identical with mature lymphocytes, responds much more readily than an immature epidermoid carcinoma of the skin. Likewise many tumors, like the giant cell tumor of bone, respond well to irradiation, although benign. The histological grading of tumors as an indicator of the irradiation response to be anticipated, can be applied only within a given group: Grade IV epidermoid carcinoma of the cervix responds better to irradiation than a Grade I carcinoma of the same location, al-

though it may not respond as well as an embryonal carcinoma of the testis. The pathologist gives you his idea of the ray-sensitivity of a tumor by drawing upon the experience of others who have treated such tumors, and by adding to that his estimation of the degree of malignancy of the particular tumor studied.

SUMMARY

1. Tumors are graded pathologically by an estimation of the proportion of immature to mature cells within the tumor.

2. The course of a malignant tumor and its response to treatment can be roughly predicted on the basis of its grade.

3. Within a given class the pathological grade of malignancy can also be used as a guide to radiation therapy.

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OTITIC BRAIN ABSCESS

By

N. O. Eaddy, M.D.,
Johnsonville, S. C.

and

RICHARD SEKERAK, M.D.,
Bridgeport, Connecticut

The three most important complications of middle ear infections are brain abscess, meningitis, and lateral sinus thrombosis.

Definition.—Otitic brain abscess means the presence of a localized collection of pus in an abnormal, circumscribed cavity formed by disintegration of brain tissue, the source of the etiologic infection being in the ear.

Frequency.—Approximately fifty per cent of all abscesses of the brain are secondary to middle ear infection.

Anatomy.—The middle ear may be likened to a six-sided box. The lateral wall represents chiefly the drum membrane. The anterior wall is rather thick and has a perforation for the entrances of the eustachean tube. The medial

wall is thin and shows the round window, the oval window, and the promontory of the vestibule, all leading into the internal ear. Infection penetrates these areas easier than the rest of the medial wall and it is often through these sites that infection reaches the intracranial cavity. The posterior wall is thick and full of cells between thin partitions of bone, these cells being known as the mastoid cells. Postero-medial to this is located the descending portion of the lateral sinus on its way to the jugular bulb. If infection spreads through this wall, it involves the cerebellum. The superior wall represents the roof, or tegmen, of the middle ear and is usually very thin, often one millimeter or even less. It forms a part of the floor of the middle cranial fossa. Pathology spreading upward through the tegmen involves the temporo-sphenoidal lobe of the brain which is situated in the middle cranial fossa. The inferior wall is the floor of the middle ear.

Etiology and Pathogenesis.—The etiology of otitic brain abscess is middle ear infection, but impaired general health is frequently the underlying factor. The causative bacteria are most often staphylococci and streptococci. The history reveals that a middle ear infection was present. Then, either through the blood stream, a retrograde thrombophlebitis, a dehiscence in the roof of the middle ear, necrosis of the superior, medial, or posterior wall of the middle ear, or along the nerve sheath of the acoustic nerve, or the perivascular lymphatics, this infection spreads to the dura mater. An epidural abscess results because the dura, like the peritoneum, possesses a remarkable tendency to wall off infection.

The infection being too virulent, or the host's resistance too poor to keep the infection localized, the process spreads in the line of least resistance—towards the brain. The abscess area remains walled off except for the advancing part. The advancing infection leaves behind a circumscribed tract, and this sometimes remains open and allows drainage into the middle ear.

Naturally, chronic infections of the middle ear cause most otitic brain abscesses—acute infections less.

Symptomatology.—The diagnosis of otitic brain abscess depends to an unusual degree on

the history of the case. Almost invariably there is a history of a chronically discharging middle ear, for months or years.

So long as the discharge follows the even tenor of its way, we may be sure intracranial complications have not developed. Extension of the process is preceded by (1) a change in the amount or odor of the discharge; (2) headache, which may have been forgotten; or (3) some exacerbation. Frequently this flare-up of the middle ear, and any ensuing headache, are attributed by the patient to a cold.

The symptoms of brain abscess may be most easily understood and remembered if considered on a pathological basis, i.e., (1) cerebral and cerebellar suppuration and (2) cerebral and cerebellar pressure.

Cerebral suppuration, in its beginning, usually causes an initial chill of more or less severity. Vomiting and headache occur without exception at some time in every case. The vomiting may be with or without nausea and may occur once or many times. The headache has no definite characteristic. It may be severe, mild, persistent, or recurrent—usually the latter. Headache and vomiting together are of much diagnostic significance.

Two very important considerations are the temperature and the pulse. During the greater part of the time the temperature is normal or subnormal with, however, occasional mild excursions above normal. The pulse rate is decidedly slow in comparison to the temperature.

The depression and toxemia produced by the suppuration result in a characteristic facies of indifference or carelessness. The tongue is persistently coated. Mild dizziness, dry skin, and sordes on the teeth are often noted.

The spinal fluid is usually not under increased pressure. The cell count varies from fifty to two hundred. Organisms are not found.

Cerebellar suppuration presents the same symptoms as does cerebral suppuration but also causes suboccipital tenderness, rigidity of the neck—mild or severe, yawning, and much more loss of flesh than does cerebral suppuration. Altered knee jerks may be present as well as glycosuria without hyperglycemia.

Cerebral pressure does not become very marked in brain abscess, probably because the abscess creates its own habitat as it progresses,

by destroying tissue, instead of merely pushing it aside as do some tumor growths. However, even mild or moderate increase of pressure may result in a variety of manifestations. Slow pulse is characteristic of this increase in pressure. The lack of persistent fever may be explained on the same basis as well as papilledema. Three other pressure manifestations frequently found are speech aphasia (inability to think of names of objects with which the patient is familiar); contralateral, slowly progressive, paresis or paralysis of the face, arm, and leg; and homonymous hemianopic indentation of the visual fields. (Homonymous hemianopic indentation of the visual fields means an indentation of the peripheral vision of the nasal part of one eye and the temporal part of the other. The reason for this is evident when we recall that the nasal half of the optic nerve on one side and the temporal half of the other form the optic tract—behind the optic chiasm.)

Cerebellar pressure signs are ataxia; a diminution of the normal muscular dexterity and coordination; paresis or even paralysis of the face, arm, or leg on the same side as the lesion; and forced cerebellar attitudes (the patient sleeping curled upon one side when, normally, he sleeps in some other position). Other pressure signs which may be encountered are papilledema, dilated pupil, spontaneous nystagmus, and scanning speech. Both eyes may be fixed laterally and any of the nerves about the base of the brain may become involved. Vertical nystagmus is always of central origin.

Pressure signs appear late in cerebellar abscess. Therefore we should strive to make the diagnosis before they appear. When, during the course of a middle ear infection, symptoms of suppuration of brain tissue are encountered, without pressure or localizing symptoms, the patient probably has a cerebellar abscess. This is true because, were the abscess in the temporo-sphenoidal (middle fossa) lobe, pressure signs would occur earlier. In addition to the cerebellum and temporo-sphenoidal lobe of the brain no other area of the brain is very apt to be involved in otitic brain abscess.

Treatment. The treatment of brain abscess is always surgical unless diagnosed too late for operative intervention to be of use.

Diagnosis.—The history or presence of a

discharging ear, with symptoms of suppuration of brain tissue, strongly suggests brain abscess. Increase in the spinal fluid cell count is of much significance.

Differential Diagnosis.—Otitic brain abscess must always be differentiated from lateral sinus thrombosis and meningitis. The former is accompanied by a striking temperature, reaching 104-6 degrees or more every day; frequently a positive blood culture; no pain or mental disturbances; and the patient looks well. Spinal fluid should be normal and the pulse rate varies directly with the temperature.

Otitic meningitis presents a persistently high temperature, agonizing persistent headache, often accompanied by a characteristic cry; stiffness of the neck, a mixture of restlessness and sleeplessness, excitability and irritability. Delirium or coma is frequent. Any of the twelve cranial nerves may be involved. The spinal fluid is cloudy, under increased pressure, and contains a marked increase in cells.

Tumor of the brain may be hard to differentiate but in the typical case there is no history of an infected ear; the hearing is not impaired; there is no fever; and the process advances steadily.

Syphilis may be recognized by a history of a primary sore and the various clinical and laboratory findings.

Case Histories.—We present here a short discussion of fourteen hospital case histories of brain abscess secondary to middle ear infection. Of these cases eleven died following operation, a mortality of 78.5 per cent. The usual terminal feature was meningitis although in one case cerebral hemorrhage and, in a second, cerebral edema was the cause of death. One case was not operated on as it died second day after admission while being considered for operation. Of the three remaining cases one was dismissed as "Improved" four months after drainage of a left temperosphenoidal lobe abscess but returned three weeks later and died of meningitis. The two remaining cases made excellent recoveries following operation and were able to earn their own living—14.2 per cent.

The youngest case was fifteen years old, the oldest fifty four and the average thirty. It is worthy of notice that none of these cases were in young children.

In four cases (28.5 per cent) the abscess was in the posterior fossa—cerebellar; in nine cases (64.3 per cent) in the middle fossa—temporosphenoidal lobe; the location was not determined in one case. Of the two cases that completely recovered one had a cerebellar abscess and one a temperosphenoidal lobe abscess.

Every one of these cases gave a history of a previous ear infection. Eight patients had a chronic otitis media ranging in duration from less than a year to as high as thirty five years. Three patients had acute otitis media from twenty one to thirty seven days duration. Three patients had had a mastoid operation from fourteen to twenty nine days previous to the establishment of the diagnosis of brain abscess.

The chief complaint of ten were headache and vomiting with a distinct association between the two; six of post-auricular pain on the side of the bad ear; one of ataxia; one of dysarthria; one of speech aphasia; one of diplopia; and one of dizziness.

The reason for the seeming discrepancy between the classical symptoms and those given below is that some of the cases were seen after complications developed.

Headache was present in every case and, in all but one, was associated at some time with vomiting. There was no characteristic feature of the headache except that it was intermittent. The pulse rate varied from a low of fifty six per minute to a high of one hundred twenty. The temperature was subnormal at some time in every case but one that came in in extremis. The highest oral temperature was never over 101 degrees except towards a fatal termination.

Paresis was present in seven cases; three in the face, arm, and leg; four the face alone; one the sixth nerve alone (external rectus muscle of the eye). Speech aphasia was present in three cases. Homonymous hemianopic indentation was observed in three cases, absent in one, and not reported in the others.

Vertical spontaneous nystagmus was present in two cases; horizontal spontaneous nystagmus in one; a bizarre nystagmus in one; and no nystagmus in ten.

Papilledema was seen in five cases, absent in seven, and not reported in two.

The patellar reflexes were absent bilaterally

in five cases, unilaterally hyperactive in two, and not mentioned in seven.

Constipation was present in ten cases. Blood Wassermann was negative in seven; not reported in seven.

Localizing signs were definitely present in all cerebellar cases and consisted of scanning speech, vertical spontaneous nystagmus, bizarre nystagmus, and impaired muscular dexterity.

Localizing signs were also present in four temporo-sphenoidal lobe cases and consisted of speech aphasia and homonymous hemianopic indentation of the visual fields.

The leukocyte count varied from a minimum of six thousand to a maximum of eighteen thousand, with the average being twelve thousand and five hundred. The spinal fluid cell count ranged from a minimum of fifty to a maximum of eight thousand (meningitis).

Glycosuria was not found in any case.

A brief consideration of two cases that died and in which autopsies were obtained is presented below, followed by a similar discussion of two cases that recovered.

J. N., white, female, seventeen years old, admitted June 20, 1933, died June 22, 1933.

Chief complaints were severe headaches associated with nausea and vomiting.

On March 1, 1933, patient had scarlet fever followed by pain in the right ear, which, in a few days, began discharging pus. Mastoidectomy was performed March 24 and she was discharged May 24. However, June 8 patient developed generalized frontal headaches, vertigo, and vomiting. The vertigo diminished; vomiting lasted five days. June 19 vomiting and vertigo recurred, preceded four days by a tendency to fall to the right.

Physical examination on admission revealed coated, dry tongue; marked spontaneous nystagmus to the right, slight to left; abdominal reflexes absent; a mild impairment of muscular coordination on right side. Leukocyte count was 16,200 with 80.5 per cent polymorphonuclears; spinal fluid showed: clear fluid, 110 cells, sugar diminished. The visual fields were not constricted. Temperature varied from 98.6 to 99.6, and the pulse from 56 to 84. Patient died suddenly June 22. Autopsy revealed a right cerebellar abscess.

H. B., white, female, thirty five years old, admitted June 5, 1933, died June 7, 1933.

Chief complaints were pain and discharge right ear, headache, nausea, and dizziness.

For several years patient had a painless discharge from the right ear. May 31, 1933, developed pain in the ear and headache. June 3 developed severe headache, nausea, and vertigo. Vomited several times.

Physical examination showed a purulent discharge from the right ear, stiffness of the neck, a right facial paralysis, a positive Kernig's, and a tendency to fall to the right and backwards. The patient was constipated. The spinal fluid contained 5,800 cells, 75 per cent polymorphonuclears. The temperature was normal, pulse 80, respiratory rate 20. The fever began to rise immediately and continued rising until fifty two hours later when patient suddenly died, the temperature having reached 107. The pulse rate hung around 100 as the temperature rose.

Autopsy report was "Abscess of right temporal lobe, with erosion of cerebral vessel, hemorrhage into the ventricular system and subarachnoid space."

R. F., white male, 43 years old, admitted June 1, 1931, discharged "Healed" September 14, 1931.

The only history obtainable was that the man had a chronic middle ear infection of indefinite duration, severe generalized headaches at times for years, and a left-sided headache for the five days preceding admission.

On examination temperature was 99.8, pulse 66, and respiration 24 per minute, and there was a mild purulent discharge from the left middle ear. The labyrinth of each ear responded normally to tests. The spinal fluid was clear, under moderately increased pressure, 150 cells, 80 per cent polymorphonuclears, sugar content normal, no organisms found on smear or culture. Blood count showed 18,000 leukocytes with 82 per cent polymorphonuclears. There was marked speech aphasia, weakness of the right side of the face, right arm, and right leg, and constipation. The average pulse rate was 70, the temperature varied from 98 to 100.

A left temporo-sphenoidal lobe abscess was incised and drained on June 12. The patient

did not improve and the area was re-drained on June 16 after which he improved rapidly and was discharged.

M. B., white female, 44 years old, admitted November 18, 1930, discharged March 5, 1931.

Chief complaints were discharge and pain right ear, vertigo, ataxia, headache, and vomiting.

The patient's history revealed a discharge from the right ear of indefinite duration during childhood. In July, 1930, discharge and pain recurred and have persisted. Since this time has had vertigo, falling to the right, severe frontal and right temporal headaches. Since late in October, inability to use fingers and right leg skillfully have been noted—spills coffee, stumbles when stepping up on pavement, etc. Recently the patient has vomited several times.

Physical examination showed a perforation of the right drum membrane with granulations protruding through perforation, temperature normal, pulse 110, respirations 24; weakness of right side of face, right arm and leg; spontaneous vertical nystagmus; tendency to fall backwards; positive Babinski and ankle clonus both sides. Patient vomited and was constipated. Temperature varied from 98 to 100, and pulse rate averaged 100. Blood Wassermann was negative, spinal fluid contained no organisms; blood count was leukocytes 11,400 with 64 per cent polymorphonuclears.

Patient had an incision and drainage of right cerebellar abscess and recovered.

TREATMENT OF MECHANICAL INTESTINAL OBSTRUCTION BY THE DUODENAL TUBE AND SUCTION

By
C. R. F. BAKER, M.D.,
Sumter, S. C.

Cases of intestinal obstruction probably cause the surgeon greater concern than any other group of cases. Having seen a number of these cases and in particular having seen a number in which although the operation was successful, the patient very soon thereafter terminated his existence, I began to watch the literature carefully for anything that I thought might help me in dealing with this type of case.

*Read before the South Carolina Medical Association, Greenville, S. C., April 22, 1936.

Not long ago I ran into an article, and since I have put its ideas into practice, I have a much more hopeful outlook for the patient with intestinal obstruction.

The early surgical method of treatment was to operate and free the obstruction after first watching the case for a number of hours to see if enemas, etc., would not give relief. Under this regime, at a meeting of the American Association of Physicians and Surgeons in 1888, a rather large series of cases was reported and the mortality was 69 per cent. With improvement in surgical technique and the realization that operation, if it was to be done at all, had to be done as early as possible, better results were obtained.

Next, about 20 years ago enterostomy was introduced as the best method of treatment. As soon as a diagnosis could be made, a small incision was made under local anesthesia; the first loop of distended intestine that presented itself in the wound was grasped; a large catheter was inserted into this loop; and the abdominal wound was closed without any attempt being made to free the obstructing mechanism. This was done with the idea that if the gas and fluid in the distended loops could be drained off through the catheter, vomiting would cease, and the patient could take some nourishment. Later it was planned to operate a second time and remove the obstruction. With this method of treatment better results were again obtained, but much was still left to be desired as the accompanying mortality statistics show.

INTESTINAL OBSTRUCTION, MORTALITY STATISTICS

Series

Meeting of American Association of Physicians and Surgeons in 1888 -----69 %

Finney S. G. & O. 32:402, 1921 -----36 %

Deaver & Ross Ann. Surg. 83:571, 1926 42 %

Miller C. J. Ann Surg. 89:91, 1929, 343 Cases. 60.9 %

Cornell Ann. Surg. 95:816, 1932 -----51.48 %

Fey & Cubbins S. G. & O. 60:738, 1935, 241 Cases -----42.7 %

Wangensteen O. H. J. A. M. A. 101:1532, 1933 -----18.4 %

In these series of cases some surgeons freed the obstruction alone, while others used enterostomy or freed the obstruction, depending upon the case.

The fact I wish to emphasize, however, is that in a fairly large percentage of the cases treated by enterostomy it was found that the second operation, the operation to free the obstruction, was never necessary. The obstruction would apparently free itself after the enterostomy had functioned two or three days, and the patient's bowels would move. The exact mechanism by which this clearing up of the obstruction takes place has not been adequately explained, but anyone who has treated intestinal obstruction by enterostomy knows it to be a fact that it does take place.

The treatment of intestinal obstruction by the duodenal tube and suction is a direct development from the use of enterostomy and this fact that after enterostomy further operation is frequently not necessary. For the distention above the obstruction can be relieved by suction on a duodenal tube just as satisfactorily as by an enterostomy.

The distention is caused by the accumulation of fluid and gas in the intestine above the obstruction. The fluid comes chiefly from the intestinal digestive juices which are poured into the gut in or about at the level of the duodenum, and McIver of Boston by a series of ingenious experiments has proved rather conclusively that the gas comes not from intestinal fermentation, as was once thought, but from swallowed air.

So the duodenal tube readily removes the intestinal juices that are poured into the duodenum, catches the swallowed air either in the stomach or duodenum, and when fluid or gas is brought from the lower reaches of the intestines back to the duodenum by reverse peristalsis it is likewise removed, until finally the bowel above the obstruction is completely emptied. If the bowel were filled with fluid alone or gas alone, it could be emptied almost immediately by the suction, but the mixture of gas and fluid makes it a slow process.

The apparatus used is simple and can be assembled in a few minutes in almost any hospital. It consists of a Levine duodenal tube of No. 14 or No. 16 French size with small holes cut back for a distance of 10 inches from the tip, two bottles of about 4,000 cc. capacity graduated by adhesive stuck to the bottle, a sling to support one of the bottles in an in-

verted position, a rubber stopper with two holes in it, and some rubber and glass tubing. Two short pieces of glass tubing are fitted snugly into the holes in the rubber stopper and the stopper is fitted tightly into one of the large bottles which is filled with water. To one glass tube is fitted a short piece of rubber tubing and to the other a long piece of tubing. Both tubes are clamped; the bottle is inverted and it is suspended by a sling well above the patient's head. The short rubber tube is connected with the Levine tube, and the end of the long tube is immersed in 500 c.c. of water, which is placed in the second bottle, and the bottle is set beneath the bed. The apparatus is ready to work as soon as the Levine tube can be introduced into the duodenum and the clamp removed from the rubber tubing. The amount of suction is equal to a column of water extending from the level of the duodenum to the level of the water in the lower bottle. This should be about 2 1-2 feet, because more than that engages the mucous membrane of the gut in the holes in the Levine tube and defeats your purpose.

Most cases of mechanical obstruction that we see are caused by postoperative adhesions, and fortunately that is the kind of case in which this type of treatment finds its greatest field of usefulness. Practically all cases of obstruction due to adhesions can be relieved by this procedure without operation. There is, however, one type of obstruction in which it most decidedly must not be used, and that is in cases of strangulation obstruction, cases in which the blood supply to a loop of gut is radically impaired, such as intussusception, volvulus, or strangulated herniae. How is one to tell whether a case has a strangulation or not? Usually the clinical data will permit one to make a diagnosis. In the first place the patient gets sick quicker and looks sick quicker with a strangulation obstruction than with a simple obstruction. He is more likely to show signs of shock, and the pulse will be elevated early. The leukocyte count will be elevated. And with a strangulation of the gut there will be abdominal muscle spasm, localized tenderness, and rebound tenderness. Furthermore, the institution of suction usually quickly relieves the pain of simple obstruction while pain will per-

sist in strangulated cases. There will be some border line cases in which the differential diagnosis is hard to make; and when in doubt, the best plan is to operate.

The treatment of a typical case is as follows: The patient is made as comfortable and warm in bed as possible, but no opiates are given.

The tube is introduced through the nostril; this is easier than trying to introduce it through the mouth. It is passed back through the nose until the patient feels it in the back of his throat. When he indicates that he feels it there, he is given a glass of water to drink and as he swallows the tube is gradually and gently pushed down the esophagus. With care and gentleness the introduction can often be accomplished without the patient's gagging a single time. After a period of time the tip will usually pass on into the duodenum without further manipulation; but if it does not, it can be made to do so by having the patient lie on his right side and giving drugs to relax the pyloric sphincter. A few drops of mineral oil are placed in the patient's nostril 2 or 3 times a day to keep the tube from causing too much irritation. The tube is fastened to the upper lip with a narrow strip of adhesive and suction applied.

If the case is one of simple obstruction, the patient's pain is diminished almost immediately, that is, as soon as the stomach is emptied. After that the typical cramp-like pains quickly diminish in intensity and within an hour or so disappear completely. If the tube does not relieve the pain, careful reexamination of the patient should be done to make certain that the case is not one of strangulation obstruction.

The patient is allowed to have nothing by mouth during the period of obstruction. He may chew gum or suck a little cracked ice to keep his mouth from becoming too dry. Fluids and nutrition are maintained by giving 3,000 to 5,000 c.c. of 5 per cent glucose in normal salt solution a day either by vein or subcutaneously. Enough fluids must be given to maintain a urine output of between 700 and 1000 c.c. If the patient is excreting this much urine per day, there is no danger of alkalosis or dechlorinization. I find that 1000 c. c. of the glucose solution given every eight hours works satisfactorily.

An electric pad to the abdomen, on for 30

minutes and off for 30 minutes, seems to help; probably by dilating the cutaneous blood vessels and diverting some blood from the congested splanchnic area.

The patient should be moved from side to side in bed occasionally, for this helps to shift the fluid and gas in the distended loops of gut and bring it in a position for the suction apparatus to remove it.

The best way to follow the progress of the case is by flat X-ray plates of the abdomen. By this means diminution in the distention of the small intestine can be observed; and when gas appears in the large intestine, it means that the obstruction has been relieved.

Unfortunately, X-ray pictures are expensive, and not many patients can afford to pay for them. There are certain clinical signs that indicate the progress of the case. In the first place, the degree of distention diminishes as the gas and fluid are removed. Another thing that will help you is the nature of the fluid aspirated from the gut. When suction is commenced, the fluid withdrawn is usually dark green or black and has a foul odor. The color is probably due to altered bile. As treatment progresses favorably, the amount aspirated diminishes and the color of the fluid becomes yellow, almost like fresh bile from the liver. When this yellow fluid appears, the treatment is nearing its end. When the obstruction has apparently released itself, try clamping the suction tube for an hour. If the cramplike pains do not recur, try giving small amounts of water at frequent intervals, and now and then reapply the suction to see whether as much is siphoned back as was given the patient. If a lesser amount is obtained, some of the water must have been absorbed or passed on, and the patient's diet can be gradually increased.

Enemas may be given, but they do not seem to help. Shortly after the obstruction releases itself, the bowels usually move without the aid of a cathartic or enema.

I want to give briefly the record of one case. The patient was admitted one morning about five weeks after he had had an operation for acute appendicitis. Soon after supper the night before, he had begun to have crampy pains in his stomach which would come and go. His bowels had moved the previous morning. The

pains grew worse and worse and he became nauseated. He was given calomel, but this served only to increase the pain and vomiting, and his bowels did not move. His abdomen swelled up. On examination the patient looked sick. No fever, but his pulse was a little rapid. The abdomen was distended and tympanic; there were no masses or spasm. X-ray showed parallel loops of small intestine greatly distended with gas. A duodenal tube was introduced and suction applied. After sixty-five hours the obstruction seemed to have been relieved. He was given mineral oil. His bowels moved with oil in the feces, and he was sent home 5 days after admission.

In conclusion, let me say that some of you may consider this a rather radical departure from the accepted methods of treating intestinal obstruction. If you will read O. H. Wangenstein's article in the J. A. M. A. for Nov. 11, 1933, perhaps you will be more convinced of its efficacy; and if you will try it in some of your cases, I am sure you will be more convinced. Even if it is not used until the obstruction has cleared up completely, if it is used a few hours until some of the distention has been relieved and the patient is filled up with intravenous fluid, your patient will be in better condition for operation and you can operate with greater ease, because the deflated intestines can be manipulated more easily than they could have been in their distended condition. And let me repeat, if there is any question of strangulation, operate at once.

DISCUSSION

Chas. J. Lemmon, M.D., Sumter, S. C.:

A very important method of treating mechanical intestinal obstruction has been clearly brought to our attention by Dr. Baker. The results obtained by the enterostomy method place the decompression method upon a rational basis.

During the past several years a great deal of emphasis has been placed upon the importance of preparing patients for the ordeal of surgery. Cases of intestinal obstruction have been and are still being operated upon immediately after entering the hospital. This I believe is wrong, because it does not matter where the obstruction is or the type of obstruction, these patients should all be decompressed and filled up with normal salt solution and glucose before they are operated upon. During this time, which requires several hours, the surgeon can more thoroughly study his case and make a better diagnosis.

This method is not advocated when the obstruction exists in the colon, because the ileocaecal valve is supposed to prevent the colon from emptying itself. However, I had a case who came in with an acute obstruction, he was decompressed, after his decompression his bowels moved freely. Later a diagnosis of mechanical obstruction of the descending sigmoid due to a malignant tumor was made. Thus the decompression enabled me to prepare my patient and convert a very poor risk into a fairly good operative risk because of the aid of the decompression.

Since Wangenstein advocated the treatment of mechanical intestinal obstruction by decompression, I have not made an emergency of any case of intestinal obstruction that has come under my care. I believe that the preparation of these poor risks is most important before operating. I have not had a case of mechanical obstruction relieved by the method; still I believe it is possible and hope to have cases amenable to such treatment.

Dr. Baker has pointed out the most important differentiating points between simple mechanical obstruction and mechanical obstruction with strangulation. Even in cases with strangulation you improve your patient's chance of recovery by giving the preliminary preparation I have mentioned before operating, because with the decompression you remove the gases and fluid and relieve the distention in the gut; and even if you have to do a resection, the mechanic is far better than if you hadn't taken some few hours to prepare your patient.

I wish to congratulate Dr. Baker upon choosing such an important subject for presentation to this society at this time. I think the decompression technique as applied to all forms of abdominal distention with nausea and vomiting one of the most important agencies advocated in advancing abdominal surgery in the past twenty years.

Dr. George T. Tyler, Jr., Greenville:

This is an excellent paper. If we would make use of the stomach tube oftener, it would be to the great advantage of our patients. There are two or three reasons, I think, why the stomach tube has not been used quite so frequently as it should have been. One is that we have not all got away from the idea of that great big thing, which reminds us more of a piece of garden-hose than anything else—the old-fashioned stomach tube. Maybe some of us have had it introduced. It is not very pleasant to think of. The stomach catheter is quite small, and patients can retain it for days, if necessary.

Dr. Baker has brought out very clearly that this method should not supplant operation or enterostomy if it is needed, but that it is one to make use of; and, if it works, very well. If it does not work, then the patient has lost nothing; in fact, he has gained a great deal: He is in better condition for operation.

There is no subject in surgery that is attended with more romance than intestinal obstruction, and the reason is that sometimes we win and sometimes we

lose. Heretofore the losses have been discouraging. We certainly are working for better results, and I know they are present because of the more intelligent and more careful treatment of intestinal obstruction.

Dr. Baker spoke of not using opiates. I believe that in this condition, opiates are indicated. The opiate does two or three things. It relieves the patient mentally and physically. It lessens peristalsis, which causes the pain. Opiates should be used. The urine output should be increased to two or three liters every twenty-four hours. The administration of fluid in these cases is absolutely necessary. These patients are vomiting; they lose chlorides; and they should have salt solution, and glucose also. It is better to use hypertonic salt solution rather than the normal salt solution, because of the severe loss of chlorides.

The more carefully these patients are watched, the better the results will be. Dr. Baker showed in his picture one thing which he did not mention. As I looked at the picture, I thought the head of the bed was higher than the foot. That is a very good idea. Maybe the patient should be even higher, in a semi-Fowler position. The blood count is important, and repeated blood counts should be made. The respiration, too, is very important, as well as the pulse and temperature. We can get a great deal of information from these simple measures. The results in intestinal obstruction are in direct proportion to the careful watching of the patient.

Dr. Wm. H. Prioleau, Charleston:

Dr. Baker has presented an important subject and has covered it fully. I have a few brief remarks to make concerning the technic of the use of the inlying stomach tube for continuous drainage. I notice that he specifies that he does not think it advisable to give the patients water by mouth in the use of this procedure. At first I followed the practice of not giving water, but soon I changed. I find that swallowing water makes the patients ever so much more comfortable, and they tolerate the tube better. The tube functions better, as it is less likely to become occluded. In treating intestinal obstruction without the inlying tube, of course, we can not give water, but in using the tube I find that water can be given, because it is sucked back as rapidly as given and effects a continuous stomach lavage. The giving of water keeps the throat and esophagus in much better condition and makes the patient much more contented.

Once the tube has been passed, if you are unable to aspirate typical stomach contents, it is wise to introduce a laryngeal mirror to make sure that the tube is in the esophagus. Otherwise it may be coiled up in the larynx.

As to opiates, recent investigation has shown that they increase the tone of the bowel and do not cause a cessation of peristalsis. So there is no reason why they should not be given. The well known beneficial effect remains the same, though it must now be explained in a different way.

Dr. Carl B. Epps, Sumter:

As you have all heard, this is offering you a method, non-operative, for treating mechanical obstruction. That covers a lot of ground, gentlemen—as I see it, everything but paralytic ileus. It covers everything in twenty-odd feet of intestine. It advises you that you can drain this twenty-odd feet of intestine with a tube one-eighth the size of that to be drained—a tube that is likely to be clogged. I consider the Levine tube very valuable but also consider its legitimate use to be decidedly circumscribed. When you are dealing with intestinal obstruction, you are not dealing with a theory; you are dealing with extremely ill patients. Most of these patients have had enemas, castor oil, Black Draught, etc., before coming to the hospital. Many of them have had obstruction for hours. I had a case recently of a patient who came in, having had intestinal obstruction for three days. I removed a piece of gangrenous intestine twelve inches long. The patient was so bad I did not feel as if I were doing an operation at all but rather doing an autopsy; which was the truth. Any complete obstruction operated on nearly three days after obstruction is practically a moribund case. How are you going to tell, without a laparotomy, that you are dealing with actual adhesions that tie down the bowel? I remember a case I had of a boy who had been operated upon—not in our hospital, of course, but in some other hospital. It was a clean case, as reported to me. He had been sick two or three days. He had one small adhesion, which completely shut off the intestine. Now, could you have opened that up with a Levine tube? Had you opened it up, could you have guaranteed that the obstruction would not have returned? No one claims that the Levine tube dissolves adhesions. I do not believe that with the Levine tube, or any other tube, you can release adhesions that you can hardly release with your hand when you get in there but have to do it by dissection.

Dr. Baker and I live in the same town, and we have had many friendly arguments over this. He and I are just about as convinced as if we were arguing over religion. We must take a common-sense view of it, I say now. What will it do, and what can it do? He and I were operating on a patient one day, an old case of salpingitis. We got down in the lower abdomen and found the bowels all matted together. He said: "If we had used a Levine tube we would not have had to operate." But I am not convinced. Often you can not tell whether it is a case of obstruction or not. Very often then bowels will move themselves in a couple of days. But I do not believe you can release adhesions with the Levine tube or any other tube. If you do get a bowel movement, you certainly have not removed the cause, because you can not dissolve adhesions with any kind of tube.

Dr. W. B. Ward, Rock Hill:

Speaking of intestinal obstruction, there are a great many varieties of it. About two-thirds of the cases that I see, or that are sent in to me as intestinal

obstruction, are not true intestinal obstruction and can be relieved by tubes. I take the viewpoint of Dr. Epps, that if it is really and truly intestinal obstruction, there is no chance to relieve that obstruction by a tube.

I have never been in a hurry to operate on intestinal obstruction. I just sat and recalled, during his talk, some cases of intestinal obstruction that I have had during the last six months. A great many of them had been obstructed for quite a few days, some as long as a week. When he said there was some way to make a differential diagnosis between an obstruction that is strangulating the intestine and an obstruction that is not strangulating the intestine, by the severity of the symptoms, I recalled a patient whom I saw just a few days ago, with a hernia causing severe obstruction, with all the evidence in the world that it was not causing strangulation. I had to open that patient up and had to resect a portion of gangrenous bowel. So I know of no way in the world by which you can accurately diagnose strangulation. There is a small percentage that you recognize at once as cases of strangulation. These cases are very difficult cases to handle, whichever way you jump, but they are very rare. The majority of intestinal-obstruction cases sent in to you are not intestinal obstruction, and they can be relieved without a tube, just by enemas and by glucose to support them over a period of time. But if it is due to a mechanical obstruction, that obstruction is some band of adhesions or a carcinoma that is closing up the bowel, and if it is one of those true intestinal obstructions, there is no possible chance to relieve them by the tube.

I was very much interested in this paper, because the subject is stated as treatment of mechanical obstructions by the duodenal tube. Now, preliminary treatment by the duodenal tube is very wonderful; we all do that; but if we have a true intestinal obstruction, I do not think anything will do any good except relieving the obstruction. In my opinion, enterostomy is more dangerous than an operation for the removal of the obstruction. I never use one under any circumstances at all, except where I can't get intestines back into cavity without relieving them of some gas.

Dr. Roger C. Doughty, Columbia:

The paper brought up a profuse discussion, which has been very interesting. It has also brought up the old argument as to how you can know that you are dealing with a complete obstruction—or one that will

be complete if you do not operate. To the general practitioners I should like to say this, that the determination whether this method shall or shall not be used is the province of the surgeon. Therefore turn the patient over to the surgeon; don't undertake to make the distinction yourself. I believe, personally, that most of the ones who get well are obstructions which were originally incomplete and were completed simply by the edema incident to some intestinal inflammation usually brought in by catharsis. This will be relieved by suction. These also are the ones which probably will recur.

I wish to emphasize the value of this method is the care of postoperative cases, where operation has been done in the upper abdomen, and also in the care of cases of ruptured appendix. It is of tremendous value, and I have seen no more comfortable group of patients than those who, following operations for upper abdominal conditions or ruptured appendix, have had the tube put in. It usually relieves both the nausea and the vomiting.

There is one point that should be mentioned. It is absolutely essential in using continuous suction to measure accurately the amount of fluid the patient swallows and the amount of fluid removed from the intestinal tract by the tube and the amount of urine the patient secretes, and also to make an allowance of from ten to fifteen hundred c. c. of fluid for the amount lost through the lungs and the skin. It is only by careful computation that you can maintain the fluid balance, and whether it is a case of mechanical intestinal obstruction or paralytic ileus, the patient's life depends upon your maintaining that fluid balance.

Dr. Baker, Closing the Discussion:

I want to thank the society for their very generous discussion of this paper. They have brought out many points that I should have liked to emphasize and go into detail about, but I could not do it in the fifteen minutes allotted to me.

As to whether an obstruction is complete or not, I am not the best diagnostician in the world; I know I am not; but since I have learned about this method I have used it in cases which previously I would have operated upon immediately for intestinal obstruction. I have had to operate on three of them—I mean I have used the tube and then operated in these cases, and so far my mortality in all cases is 22.21 per cent.

THE JOURNAL

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MARCH, 1937

THE PROVISIONAL PROGRAM

The Scientific Committee, Dr. O. B. Mayer, Chairman, Columbia, S. C., presents in this issue of the Journal the preliminary information about the eighty ninth annual meeting of the State Medical Association in Columbia, April 13, 14, 15, 1937. In general all the plans are well under way for a great meeting. The in-

vited guests this year are men of international fame. Dr. Morris Fishbein is known around the world as the Editor of the Journal of the American Medical Association, conceded to be the greatest medical journal in any language. Dr. Fishbein will deliver two addresses, one before the Association and the public at a meeting to be held in the interest of the health of the people of South Carolina, Wednesday evening, April 14. Dr. Fishbein will also deliver an address on Tuberculosis at the laying of the corner stone of the new half million dollar building of the South Carolina Tuberculosis Sanatorium by the Grand Lodge of Masons of South Carolina.

Dr. A. B. Cannon, Associate Professor of Dermatology and Syphilology, College of Physicians and Surgeons, Columbia University, New York, will deliver an address on some of the problems of the general practitioner on diseases of the skin.

The Woman's Auxiliary will have an unusually fine program under the presidency of Mrs. T. R. W. Wilson of Greenville. There is a preliminary announcement in this issue of the Journal about the Auxiliary.

Both the scientific and commercial exhibits promise to be of unusual scope. The entertainment features for the Association have been planned on a scale commensurate with the reputation for hospitality of the capital city of our State. The Jefferson Hotel has been selected for the Headquarters of the Association and the place of meeting, but there are many other good hotels recommended by the local committee on arrangements, of which Dr. T. A. Pitts, of Columbia, is the General Chairman.

There was an attendance at the last meeting in Columbia of approximately seven hundred people. We have every reason to believe that there will be a similar record attendance this year.

PROGRESS IN HAY-FEVER

Although the matter of prevention and cure of seasonal hay-fever is still some distance from a satisfactory state, nevertheless, gradually increasing knowledge of the nature of this prevalent and disabling disease has made the load

of the sufferer somewhat less difficult. One step toward a better prospect for the patient has been made in the work done in recent years toward a scientific evaluation of so called hay-fever resorts, places to which sufferers have traveled in an effort to avoid the atmospheric pollen. The claims of such resorts have hitherto been based on scattered impressions and publicity agents' optimistic views. Sometimes they have been based on the mistaken idea that the absence of the plant in the immediate locality was a guarantee against hay-fever attacks. This type of claim has been invalidated by the recognition of the fact that pollen may be borne by the wind for very considerable distances.

The more recent and better method of investigation of the status of any particular place as regards its value to the hay-fever patient has been through the exposure of prepared slides on which may be caught the pollen grains in the atmosphere and from which comparative microscopic counts may be made. This method has been followed by Durham*, who has surveyed a great number of places throughout this country, Canada, and Mexico. His conclusions in regard to ragweed, which is by far the chief offender among the plants, is that there is no ragweed in the extreme pacific north west, that there is relatively little in the south western states and that the abundance of ragweed pollen varies enormously in different parts

of the rest of the country. He establishes certain comparative figures in an arbitrary estimate of what he calls a hay-fever day, a day on which there is such an amount of ragweed pollen in the air that symptoms might be expected in the susceptible person. On such a basis South Carolina ranks fairly well as a hay-fever resort. Figures from Charleston indicate only 7 "hay-fever days" per season with a maximum atmospheric contamination of 107 pollen grains and an average seasonal total of 571. This rates very well with such places as Asheville with 31 days, maximum of 630 and seasonal total of 4,070; Atlanta with 24 days, 308 maximum, and 2,350 seasonal total; Bar Harbor (Maine) with 5 days, 76 maximum and 426 seasonal total; Montreal with 10 days, 132 maximum and 744 seasonal total. Other places in the country run as high as 38 days with 1,117 maximum contamination and 12,773 seasonal total.

It will appear from this, that the South Carolina physician need not send his patient with ragweed hay-fever far from home if he is depending chiefly on avoidance of contact with the pollen to relieve the sufferer. Desensitization and minimum exposure should be the best protection.

J.I.W.

*Evaluation of the Ragweed Hay-Fever Resort Areas of North America, Jour. of Allergy 8 Jan., 1937, 175.

YORK COUNTY MEDICAL SOCIETY

Ladies' Night was an enjoyable occasion for the York County Medical Society, January 23, 1937. It is always looked forward to with a great anticipation of pleasure, and no one was disappointed. Meeting in the McNeel Memorial building in York, S. C., the address of welcome was by Dr. R. A. Bratton, one of our oldest and most beloved physicians. The response was by another well known and appreciated physician from Rock Hill, Dr. J. E. Massey. After these addresses, the assembly repaired to the dining hall, where a delicious dinner awaited them, prepared and served by the Thursday Afternoon Book Club. Vocal

and instrumental music was furnished by pupils from the York High School under the direction of Miss Margaret Mullinax. After this, the guests were entertained by Dr. Roy Z. Thomas by an illustrated lecture on the beauties of the West. A short business session was held, at which the following officers for 1937 were elected:

President—Dr. J. R. DesPortes, Fort Mill, S. C.

Vice-President—Dr. J. E. Massey, Rock Hill, S. C.

Secretary and Treasurer—Dr. J. I. Barron, York, S. C.

John I. Barron, Sec.

PROVISIONAL PROGRAM

PROVISIONAL PROGRAM OF EIGHTY-
NINTH ANNUAL SESSION SOUTH
CAROLINA MEDICAL ASSOCIATION
April 13, 14, 15, 1937—Columbia, S. C.

Headquarters
THE JEFFERSON HOTEL

The House of Delegates will meet on Tuesday,
April 13

Scientific Sessions Wednesday and Thursday,
April 14, 15

Opening Exercises Scientific Session

Invocation—9:30 A. M.

Address of Welcome—Dr. L. B. Owens,
Mayor of the City of Columbia.

Address of Welcome—Dr. W. J. Bristow,
President Columbia Medical Society.

Response:

Scientific Program, 10 A.M.

PRESIDENT'S ADDRESS

By Dr. R. C. Bruce, Greenville, S. C.

Ectopic Pregnancy

By Dr. Douglas Jennings, Bennettsville, S. C.
Discussion opened by Dr. Geo. Bunch, Colum-
bia, S. C.

Chronic Hoarseness

By Dr. E. W. Carpenter, Greenville, S. C.
Discussion opened by Dr. T. R. Gaines, Ander-
son, S. C.

Psychoneurosis Following Injury

By Dr. Charles O. Bates, Greenville, S. C.

Some Observations on Errors Made in the Diagnosis and Management of Ear, Nose, and Throat Conditions

By Dr. J. W. Jervey, Jr., Greenville, S. C.
Discussion opened by Dr. Walter Bristow, Col-
umbia, S. C.

The Recognition, Differentiation, and Manage- ment of the Commoner Cardiac Crises

By Dr. W. R. Mead, Florence, S. C.

Biopsy Methods and Their Application

By Dr. T. M. Peery, Charleston, S. C.
Discussion opened by Dr. Hillyer Rudisill,
Charleston, S. C.

The Medical Profession and the Public Health

By Dr. Leon Banov, Charleston, S. C.
Discussion opened by Dr. J. I. Waring,
Charleston, S. C.

Pernicious Malaria in Children

By Dr. Julian P. Price, Florence, S. C.
Discussion opened by Dr. Wm. Weston, Sr.,
Columbia, S. C.

X-Rays, Radium, and Electro-Surgery in the Treatment of Cancer of the Skin

By Dr. W. M. Sheridan, Spartanburg, S. C.
Discussion opened by Dr. Ralph Mostellar,
Spartanburg, S. C.

Meningococcal Meningitis—An Analysis of 100 Cases

*By Drs. Francis B. Johnson and J. S. Reveley,
Laboratory of Clinical Pathology, Medical Col-
lege, Charleston, S. C.*

Discussion opened by Drs. G. McF. Mood, J. J. LaRoche and J. I. Waring of Charleston, S. C.

Extrapleural Pneumolysis

By Dr. William Prioleau, Charleston, S. C.

Liver Abscesses

By Dr. J. R. Young, Anderson, S. C.
A paper will appear on the program on THE
WORKMEN'S COMPENSATION ACT.

Special Order

Wednesday, April 14, at twelve noon

ADDRESS:

SKIN PROBLEMS ENCOUNTERED IN GENERAL PRACTICE

By Dr. A. B. Cannon, New York City

Special Order

Wednesday, 4 P. M.

Dedication exercises of the New Psychopathic
Building, South Carolina State Hospital

ADDRESS:

*By Dr. W. L. Treadway, Assistant Surgeon General
United States Public Health Service, Washington,
D. C.*

Special Order

Wednesday—6 P.M.

LAYING OF CORNER STONE OF NEW BUILD- ING OF SOUTH CAROLINA TUBERCULOSIS SANATORIUM, STATE PARK

*By the Grand Lodge of Masons of South Carolina
and the S. C. Medical Association*

Special Order

PUBLIC HEALTH MEETING

Wednesday night, April 14

ADDRESS:

FOOD FADS AND FOLLIES

*By Dr. Morris Fishbein, Editor Journal American
Medical Association, Chicago, Illinois*

Skin Clinic

Thursday morning, April 15

*By Dr. A. B. Cannon, Chief of Clinic Dermatology
and Syphilology, Vanderbilt Clinic, New York*

Alumni Luncheon of the Medical Colleges

The usual medical education luncheon will
be held on Wednesday, April 14, and at that
time there will be a short business session of
the Alumni Association of the Medical College
of the State of South Carolina. This is one of

the outstanding events of the entire Association meeting every year.

Commercial and Scientific Exhibits

There is an increasing interest all over the

country in the exhibit features as developed at medical conventions. The South Carolina Medical Association has kept in line with this progress and will present an attractive line of both commercial and scientific exhibits.

LEXINGTON COUNTY MEDICAL SOCIETY

The Lexington County Medical Society met February 3 at 6 o'clock in Lexington with a good attendance.

Dr. W. R. Barron, of Columbia, read a paper on The Treatment of Syphilis which was very instructive and was discussed at length by the members of the society.

During the business session the following officers were elected:

Dr. Karl Able, President, to succeed Dr. G. F. Roberts.

Dr. James Crosson, Vice President, to succeed Dr. D. S. Keisler.

Dr. J. H. Mathias, Secretary-Treasurer, to succeed himself.

Dr. A. T. Hutto was elected delegate to the State Convention with Dr. G. F. Roberts, Alternate.

J. H. Mathias, Secy.

Dr. E. A. Hines, of Seneca, addressed the Seneca Parent Teacher's Association Tuesday night, January 19, on the subject of The Father's Part in the Child's Education. This meeting was held at the Chapter House of the Presbyterian Church in the annual observance of "Father's Night." Dr. Hines was the guest speaker.

PROPOSED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE SOUTH CAROLINA MEDICAL ASSOCIATION TO BE ACTED ON AT THE APRIL MEETING

The following amendments to the Constitution and By-Laws of the South Carolina Medical Association will be voted on at the meeting to be held in Columbia, April 13, 14, 15, 1937.

Dr. George T. Tyler, Greenville, offered the following two resolutions:

"Inasmuch as there are a number of doctors belonging to the State Association who would gladly be of some service and who could from time to time inject new blood into the organization, but, as things are, due to the fewness of elective places and the tendency mechanically to re-elect each year officers to succeed themselves, they are not called upon to serve,

Therefore be it resolved that from now on, with the exception of the Secretary, no officer of the State Medical Association, nor any member of any committee or board, shall be eligible to serve more than two successive terms."

"Since in two successive years, our President has died while in office and the President-Elect has had the unexpired term to fill, as well as his own term,

Therefore be it resolved that we modify the Constitution by electing, in addition to the President Elect, a Vice President who shall assume the office of his superior whenever the necessity arises.

(Signed)
George T. Tyler, Jr.
Robert E. Abell
F. H. McLeod
Floyd D. Rodgers

Dr. J. H. Cannon, of Charleston, offered the following resolution:

"Resolved that the South Carolina Medical Association adopt an additional by-law creating the office of speaker of the house, such officer to be elected annually, and the duties of such officer to be to preside over the House of Delegates."

Dr. Floyd D. Rodgers, of Columbia, offered a proposed amendment to the constitution of the South Carolina Medical Association, as follows:

"Article

Section

"Immediately following the election of officers at the annual meeting of the House of Delegates, an employee to be known as House Parliamentarian shall be elected by the members of the House to serve for one year or at the pleasure of the House. He shall be eligible for re-election. The qualification of the parliamentarian so elected shall be that he hold membership in the South Carolina Medical Association, that he possess a judicial temperament, and that he possess a thorough knowledge of parliamentary procedures. His duties shall be to sit with the President at all regular or special meetings of the House of Delegates and act in a purely advisory capacity to the President on all questions of parliamentary procedure which may arise. He shall have no vote in the House and he shall have no voice in the meetings save to explain any given parliamentary ruling at the request of the President. The President shall not necessarily be bound by any ruling suggested by the parliamentarian, and any such ruling will, of course, always be subject to appeal from the floor, or by appeal requested by the president. The parliamentarian, for his work and for his maintenance of intimate knowledge of rules of procedure, shall be given an annual honorarium of ten dollars out of the treasury of the Association.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

ADVISORY COUNCIL

Dr. E. A. Hines	Seneca, S. C.
Dr. George Bunch	Columbia, S. C.
Dr. W. B. Ward	Rock Hill, S. C.
Dr. Roderick MacDonald	Rock Hill, S. C.

OFFICERS

President, Mrs. T. R. W. Wilson	Greenville, S. C.
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President-Elect, Mrs. Jesse O. Wilson	Spartanburg, S. C.
First Vice President, Mrs. T. R. W. Wilson	Greenville, S. C.
Second Vice President, Mrs. C. C. Ariail	Greenville, S. C.
Recording Secretary, Mrs. David Garvin	Ridge Springs, S. C.
Corr. Secretary, Mrs. R. M. Pollitzer	Greenville, S. C.
Treasurer, Mrs. T. A. Pitts	Columbia, S. C.

COUNCILLORS

Mrs. J. C. Brown	Walterboro, S. C.
Mrs. Price Timmerman	Batesburg, S. C.
Mrs. W. L. Pressley	Due West, S. C.
Mrs. Henry Heinitch	Spartanburg, S. C.
Mrs. W. R. Blackmon	Rock Hill, S. C.
Mrs. Richard Baker	Sumter, S. C.

STATE CHAIRMEN

Student Loan Fund, Mrs. L. O. Mauldin	Greenville, S. C.
Student Loan Fund, Co-Chairman, Mrs. C. P. Corn	Greenville, S. C.
Student Loan Fund, Treas., Mrs. Warren White	Greenville, S. C.
Jane Todd Crawford Mem., Mrs. Riddick Ackerman	Walterboro, S. C.
Public Relations, Mrs. John Fleming	Spartanburg, S. C.
Publicity, Mrs. Jenkins Mikell	Columbia, S. C.
Hygeia, Mrs. W. C. Abel	Columbia, S. C.
Historical, Mrs. H. M. Stuckey	Sumter, S. C.

The twelfth Annual Convention of the Woman's Auxiliary to the South Carolina Medical Association will convene in Columbia, April 13, 14, 15. It is with great pleasure that I sent to all of you greetings from the Woman's Auxiliary to the Medical Association of South Carolina.

All auxiliary units are in full swing just now, compiling reports for the various State Officers and Chairmen so that the state program may be put over effectively and well. The Convention, with headquarters at the Jefferson Hotel and the many delightful plans of Mrs. W. C. Abel, President of the Columbia Unit of the Woman's Auxiliary and the Convention Chairman, Mrs. Izard Josey, make one very impatient to be "among those present."

There are many plans to be completed before our annual meeting; so let me urge each one of you to send your dues to your County Treasurer before March 15. There are many eligible women in South Carolina who are not "Auxiliary conscious." We will welcome them into our membership as members-at-large with every privilege except that of voting.

For the first time the Auxiliary will sponsor

Exhibits from each county of antique medical instruments, old texts, and saddle bags. Your County Historian will display your exhibit and be responsible for same.

County Auxiliary Presidents are requested to observe, in an appropriate manner, Doctor's Day, March 30th. It is my belief that such a meeting will bring doctors more closely together and cement the friendships of the physicians. We serve the laity too by honoring the physician. Won't you please put March 30 on your Auxiliary Calendar?

May each day increase our loyalty to the aims of our Auxiliary—thereby assuring us of a successful State Convention. Remember the dates, April 13, 14, 15.

Mrs. Thomas Robert Wilson
President Woman's Auxiliary
South Carolina Medical Asso.

YORK COUNTY WOMAN'S MEDICAL AUXILIARY MEETING

With fifteen doctor's wives present, the York County Woman's Medical Auxiliary held their February meeting with Mrs. C. B. Harrell as hostess at her home on Confederate Avenue, Rock Hill, S. C.

Mrs. J. R. Miller, the President, was in charge of the meeting, which opened with routine business. Special discussion centered about the auxiliary activity of writing histories of York County doctors who are deceased.

The lives of about thirteen of the county's doctors have been prepared. The latest one completed, that of the late Dr. I. A. Bigger of this city, was read by Mrs. J. R. Miller.

An interesting and varied program on numerous phases of health and hygiene was presented by Mrs. J. L. Bundy, who had compiled an informative set of questions and answers from the February issue of Hygeia, the official magazine of the American Medical Association.

During the delightful social period that concluded the formal session, Mrs. Harrell, as-

sisted by her daughter, Mrs. T. H. Chiles, served a delicious refreshment course.

Adding to the pleasure of the occasion were the many lovely spring flowers used in the rooms.

Among the members from the county represented were Mrs. W. B. Jones and Mrs. W. C. Whitesides, of York; and Mrs. W. K. McGill, of Clover.

Mrs. I. A. Bigger, Secretary.

WOMAN'S AUXILIARY TO THE SOUTH CAROLINA MEDICAL ASSO.

Dear County Auxiliaries:

Printed below is a copy of a letter received from Mrs. J. P. Simonds, Publicity Chairman of the American Medical Association Auxiliary. It is quite a set up for us to obtain space each week in the Journal of the American Medical Association and I beg that each of you bear this in mind and let us have some real publicity, worthy of appearing in this widely read magazine.

Sincerely,

Mrs. I. Jenkins Mikell,
Press & Publicity Chairman.

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

Wauwatosa, Wisconsin
January 5, 1937

Mrs. Jenkins Mikell,
Columbia, S. C.

My dear Mrs. Mikell:

The National Auxiliary will be given space each week in the Journal of the American Medical Association—in the section devoted to the New Bulletin. The Board of Trustees and the officials of the Association have extended this courtesy to the Auxiliary because of the increasing usefulness of its service to the medical profession. The first Auxiliary news items published by the Journal appeared in the issue of January 2, 1937.

As Chairman of the Press and Publicity Committee of the National Auxiliary, it will be my duty each week—from January until June 1937—to send Dr. Morris Fishbein, the Editor of the Journal, news items from National, State and County Auxiliaries. Dr. Fishbein will edit

this Auxiliary news and will publish whatever is of National Auxiliary interest or value.

The only sources which I have for obtaining State and County Auxiliary news are the reports which I received from the State Press and Publicity Chairmen and the Auxiliary news which is published in State Medical Journals. The amount of publicity which any State Auxiliary receives in the Journal will depend entirely upon the amount of news which I obtain from these sources.

The Journal of the American Medical Association has a weekly circulation of approximately 100,000 copies. In my new responsibility—that of sending acceptable, up-to-date Auxiliary news each week to the Editor of the Journal—I most earnestly request that you send us, just as *often* as you can, news of your state and county Auxiliaries, in order that your State Auxiliary may have its share of publicity in the Journal of the American Medical Association.

Thanking you for your cooperation, I am

Yours very sincerely

Mrs. J. P. Simonds, Chairman
Press & Publicity Committee

Address: 25 East Walton Place
Chicago, Illinois.

RIDGE MEDICAL AUXILIARY

The December meeting of the Ridge Medical Auxiliary was held with Mrs. W. P. Timmerman. Mrs. Timmerman had charge of the literary program which was a Christmas program. "Silent Night" was sung; Mrs. E. C. Ridgell led in prayer. Floride Langford gave a Christmas reading. Mrs. W. P. Timmerman read a fine paper on "The Dionne Physician—His Remedies and Cares." Mrs. E. C. Ridgell gave the story of "The Other Wise Man."

The President, Mrs. David Garvin, presided over the business program. Mrs. Timmerman gave a report of the Executive Committee meeting which was held in Rock Hill. A report of the Southern Medical meeting in Baltimore, written by Mrs. Sanders, was read by Mrs. Garvin. The Student Loan Fund had a splendid report. Several subscriptions were secured to Hygeia magazine. Mrs. Timmerman gave

a talk on Digytalis and exhibited a digytalis plant.

After an interesting contest the hostess served a delicious sweet course with hot coffee.

The meeting was well attended by members and several visitors were present.

Mrs. E. C. Ridgell,

Press & Publicity Chairman.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT No. 328 (33981)

Case of Dr. McCrady

Dr. Robertson (presenting case):

A 34-year-old negress, laundress, admitted 7-10-36, died 7-19-36.

History: Onset 3 months before admission with pain in the bladder region at menstrual period, burning on urination and frequency, but no hematuria. These symptoms subsided under treatment. About June 15th, at time of menstrual period, a severe pain appeared in the right side of the abdomen, involving both upper and lower quadrants. The pain was dull and continuous with occasional sudden, sharp exacerbations. The pain apparently began low in the right side of the abdomen and extended upwards. Infrequent pains in the back, across lumbar region. Bothered with "gas" and belching for some time. Some weight loss. Menses "regular until last period. At that time she had a very scanty flow and pain in side started." Married 14 years, four pregnancies. One child now living, the other three stillborn or premature, with death soon after birth. No statement as to time since last pregnancy. Denies all previous illness except "flu." "Neuritis" in right hand 10 years ago.

Exam.: Temp. 102, pulse 116, resp. 40, B. P. 108/72. Well nourished and well developed. Some carious teeth and pyorrhoea. Lungs clear. Mediastinum normal. Heart: Faint, blowing, aortic diastolic murmur, but no thrill. Heart not enlarged. Regular in rate and rhythm. Abdomen: markedly distended and tender throughout to deep palpation. No fluid wave elicited. Tympanitic all over abdomen, including flanks. Pain and rigidity noted over right lower quadrant at about McBurney's point, and extends along the inguinal ligament to the midline. Pelvic: cervix hard, and causes pain on right side when moved. No masses felt on first pelvic exam., but subsequent examination by Dr. McCrady showed a firm mass in the right side of abdomen, which was taken to be a fibroid. Remainder of exam negative.

Lab.: Urine (7-10) cath., Sp. Gr., albumin, sugar, acetone and casts neg., no note as to leukocytes or erythrocytes in urine. Blood (7-10; 7-13): Hb. 45 per cent D, -; RBC 2,280,000, -; WBC 7400, 6800; polys

64 per cent, -; lymphs 24 per cent, -; monos 12 per cent, -. Thick and thin smear for plas, negative (7-11; 7-16). Blood Kolmer and Kline neg. Blood Chemistry (7-18 at 9 PM) NPN 26 mg., sugar 48. Sedimentation time (7-13) 20 mm. in 1 hour. Blood Widal, Weil-Felix, Para A and B (7-11) all negative. Spinal Tap (7-18): no cell count recorded; colloidal gold negative, Kolmer negative.

Course: Temp. course irregular, rising to 102-103 in afternoon or evening, usually falling to normal in morning. Pulse varied in relation to temperature, respirations usually 20-24. On 7-16, because of continued fever, a therapeutic test with quinine was given, with no effect on temperature. Transfusion contemplated on 7-17, donor matched but did not cross-match. A re-check with recipient's serum and donor's cells showed no hemolysis or agglutination after 4 hours incubation. 220 cc. of whole blood given by multiple syringe method on 7-18-36 at 2 PM. When patient returned from OR she was semiconscious and thrashing about. 3 hours after transfusion patient in complete coma with divergent pupils; respirations slow and jerky. Died at 12:10 AM of 7-19-36, ten hours after transfusion.

Dr. Robert Wilson (conducting): Mr. Roper, will you open the discussion?

Student Roper: The early symptoms suggest cystitis, but there is no urine examination to confirm this opinion. Following this, pain developed in the lower abdomen at the menstrual periods, and later became constant, associated with pain in the back. She had high fever on admission, and had marked tenderness in the lower abdomen. This suggests salpingitis. The aortic murmur, coupled with the history of still births, suggests syphilitic infection. But the blood count and sedimentation rate do not suggest acute salpingitis. In any case of chronic pelvic inflammation in which the history and findings are not those of gonorrhoeal salpingitis, the possibility of tuberculous salpingitis must be considered. In this case, the slow onset and course, the low blood count associated with the high fever, suggest tuberculous salpingitis. The abdominal distention suggests that a tuberculous peritonitis was associated with the salpingitis, as is usually the case.

Dr. Wilson: Mr. Bratton, what can you add to the discussion? First give us your diagnosis and then show how you arrive at it.

Student Bratton: My diagnosis is chronic tuberculous salpingitis. There is the low abdominal pain and tenderness of salpingitis, but instead of the menorrhagia and leukocytosis usually associated with gonorrhoeal salpingitis in the active phases, there is an amenorrhoea and a low leukocyte count. The most likely bet seems to be tuberculosis. I cannot speculate as to the primary focus of the tuberculous process, as there is nothing here to suggest where it may have been.

The mass on pelvic examination felt like a fibroid. It might have been a fibroid, but I still believe there was a salpingitis, too.

The history of rather sudden pain in the side associated with amenorrhoea also suggests ruptured ectopic pregnancy, but the duration of the illness suggests that that was not the trouble.

I think the pertinent data point to a salpingitis, and I believe that the chronic course, anemia and loss of weight suggest that it was tuberculous, and probably associated with a tuberculous peritonitis.

As to the sudden death, I thought at first that anaphylactic shock probably caused it, but death seems to have been quite late for that to be the explanation. Possibly there was a thrombosis of a cerebral blood vessel.

Dr. Wilson: Mr. O'Daniel, do you agree with what has been said?

Student O'Daniel: I agree with the most of what Mr. Bratton has said, but I believe that a malignant tumor must also be considered, especially a carcinoma of the ovary. This would give the vague abdominal symptoms and distention, and could explain the low hemoglobin. The mass in the side of the pelvis could have been of that nature. But I believe that tuberculous salpingitis is more likely, for the reasons which Mr. Roper and Mr. Bratton have given.

Dr. Wilson: Dr. McCrady, will you discuss your case?

Dr. McCrady: I'd rather ask questions than discuss it. How does Mr. O'Daniel account for a low hemoglobin in carcinoma of the ovary?

Student O'Daniel: The ovarian tumor could have eroded the bowel, and caused bleeding into the intestinal tract.

Dr. McCrady: Of course that is possible, but with such erosion one would expect symptoms referable to the digestive tract, don't you think?

I saw the patient in consultation when she was on the medical service, and was not sure at the time that she was a gynecological case, but because I believed that she had a fibroid, I recorded that we would accept her on the gynecological service, if a medical cause of her symptoms could be ruled out.

We were suspicious of tuberculous peritonitis because of the mass in the pelvis, the low hemoglobin, the low blood count, and the abdominal pain. There was no history of gonorrhoea, and nothing to suggest

a recent pregnancy with puerperal infection. The reason we did not operate was the suspicion of tuberculosis.

Dr. Wilson: When I read this abstract over, I did not recall that I had seen her, and I reasoned very much as you men have. But from the chart I see that I was consulted about the case as she was dying. At this time her breathing was slow and gasping, the pupils were pinpoint and did not react to light, and the eyes were divergent. The limbs were all flaccid. These all suggest a lesion in the pons, since there is no history of morphine administration. I thought the lesion was probably an embolism. The resident on the service, Dr. Pope, wanted to know if I believed that the transfusion caused her death; I did not think so. I did not examine her as to her essential illness, merely as to her coma.

Dr. Cain: It seems to me that the anemia here, in the absence of bleeding, is indicative of some long-standing disease. The fever would suggest an active disease, but the blood count does not. Tuberculosis seems to me to be very much in the forefront. I suspect that the mass palpated was a large group of matted tuberculous glands in the pelvis.

Dr. Johnson: It is an important point in this case whether this patient had a reaction to transfusion or not. Most hemolytic reactions occur much earlier than this one did after transfusion, very frequently occurring during the transfusion. In a case of suspected hemolytic reaction, the urine should be examined for hemoglobin.

Furthermore, I don't believe that 220 cc. is enough blood to cause a fatal transfusion reaction. In most cases, the blood of the patient would so dilute this small amount of foreign serum that no reaction would occur.

The hypoglycemia is something else to consider. We do not know her blood sugar before the transfusion, and, generally speaking, a blood sugar level of 45 mg. per 100 cc. of blood is not low enough to cause hypoglycemic coma. It may indicate shock.

Dr. Lynch: I don't know what the patient died of. In the absence of an anatomical reason for sudden death, I must conclude that her death was a result of her transfusion, although there was no hemoglobin in the kidney as would be expected in a hemolytic reaction. Thrombosis or embolism of the brain which causes immediate death may leave no anatomical trace, but to suspect such an affair, we must have a source for an embolus, a cause for a thrombosis, and these are lacking here. There was no evidence of tuberculous meningitis.

This patient had a tuberculous salpingitis, but I don't see how you arrived at that diagnosis from the record. If a diagnosis of tuberculous peritonitis had been made and properly emphasized, rather than jumping immediately to the salpingitis, I might be able to follow the reasoning.

(Demonstrating autopsy specimens) The tubes and ovaries contain pocketed cavities of cheesy ma-

terial, quite different from the appearance of gonorrhoeal, or other suppurative salpingitis.

Here the stomach shows the studding of the serosa with caseous nodules, and similar tubercles were scattered all over the peritoneal surfaces. There were numerous enlarged and caseous lymph nodes in the pelvis.

There was a small calcified area in the periphery of the lung, as you can see here, and a similar calcified nodule in the corresponding hilar lymph node; these represent the primary tuberculous complex, which seems now to have healed.

Whether the tuberculous salpingitis preceded or followed the tuberculous peritonitis is a matter of pure speculation. Either of the two processes can follow the other. Tuberculous peritonitis is probably much more common than tuberculous salpingitis, and I believe that salpingitis is usually a result of the peritonitis, as the tubes drain the infective material from the abdomen.

There was a pocket of fluid between abdominal adhesions, which may have been the mass felt, or the

tubo-ovarian masses themselves may have been palpated. There were no fibromyomata of the uterus.

There were a number of ulcers in the sigmoid colon and rectum, and one of these extended through the wall of the intestine, to communicate with an abscess in the pelvis. The anemia must have resulted from bleeding from those ulcerations, and also from toxic absorption from the pelvic abscess.

But I still do not see how the diagnosis of tuberculous salpingitis could be made from the record, more or less independently of peritonitis.

Dr. McCrady: On the ward we had a suspicion of tuberculous peritonitis, but we didn't consider tuberculous salpingitis too strongly.

Dr. Prioleau: It is pretty well recognized that tuberculous peritonitis in the female usually involves the tubes, and with the symptoms largely confined to the lower abdomen I believe that tuberculous salpingitis should be suspected clinically.

Dr. Lynch: There was no evidence of disease of the heart or aorta to explain the heart murmur on an organic basis.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"LATE INFECTIONS FOLLOWING THE USE OF PINS AND WIRES IN BONES"

The insertion of pins and wires in bones for purposes of fixation and traction is effective and comparatively easy of execution. So much so that it is in quite general use. The procedure is remarkably free from trouble; however, it must be constantly borne in mind that there is the ever present danger of infection. In a recent article in the *Journal of the American Medical Association* (107:1607 November 14, '36), Dr. S. L. Haas, of San Francisco, has reported two cases of late infection and discussed the subject in general.

Even though the pins or wires are inserted under strict aseptic technic, the tract is potentially infected as it is connected with the skin. The external opening provides drainage but also a portal of entry for organisms. Granulation tissue grows along the tract and provides

something of a barrier against infection. After the removal of the pin the soft parts may heal more rapidly than the bone, providing ideal conditions for the growth of latent bacteria. Extensive infections of the soft parts, persisting of sinuses, and osteomyelitis with sequestra occur, at times necessitating extensive surgery or even amputations. Two cases are reported in which the infection did not manifest itself until after twenty-two months and two years respectively after the removal of the pins. In both cases there was pathologic evidence of a low grade infection in the bone.

The author recognizes the great value of pins and wires inserted into the bone for the purposes of fixation and traction. He thinks that they are used too freely, and on account of the dangers associated with their use, other methods should be used when of essentially the same efficiency.

BOOK REVIEWS

CARCINOMA OF THE FEMALE GENITAL ORGANS, by M. C. Malinowsky and E. Quater. Translated from the Russian by A. S. Schwartzmann, A.B., M.D., Boston, Bruce Humphries, Incorporated, Publishers. Price, \$5.00.

It is of inestimable value in the study of cancer to know the results of research in all countries. At present there is an extraordinary output of this literature and nearly every country is expending enormous sums of money to discover the cause or causes of cancer and the best method of treatment. This is a Russian book and as we have previously commented, properly presented illustrations add tremendously to the value of any scientific text and this book has a splendid array of them. By specializing the authors have brought together an excellent resume of the subject they have undertaken to study. The modern trend has been emphasized by publication of several outstanding investigators in a single volume. A list of these contributors and their subjects is appended:

General Data Dealing With The Pathogenesis And Etiology of Tumors. Professor N. N. Anitschkow.

The Pathological Anatomy of Carcinoma of The Uterus And Mammary Gland. Professor W. T. Talalaew.

Clinical Picture of Carcinoma of The Uterus. Professor E. I. Quater.

The More Rarely Observed Forms of Carcinoma of The Female Genital Organs. Professor Malinowsky.

Metastatic Carcinoma of The Ovaries. Doctor Th. J. Pojarissky.

Surgical Treatment of Carcinoma of The Uterus. Professor W. S. Grusdew.

The Treatment of Carcinoma of the Uterus by Radiant Energy. Professor B. A. Archangelsky.

Palliative Treatment of Inoperable Carcinoma. Professor M. G. Kuschnir.

Calcium Therapy of Inoperable Carcinoma. Professor E. I. Quater.

Carcinoma of The Mammary Glands. Professor S. I. Spassokukozky.

Carcinoma of The Female Sexual Sphere and Disability. Privat-Dozent J. E. Gittelson.

MEDICAL MORALS AND MANNERS, By Hubert Ashley Royster, M.D., Chapel Hill, The University of North Carolina Press, 1937. Price \$2.50.

The author of this book is quite well known in South Carolina, having delivered many important addresses before various audiences in the State. The book in the main is a collection of the addresses and other experiences during a period of some forty years as a successful surgeon. Dr.

Royster has been much more than a surgeon for he has sought information from many fields of endeavor and along the way he has been a keen observer. That is as it should be, for the highest type of physician or surgeon should be much more to his patients and to the public than an exclusive follower of his craft. Dr. Royster is known throughout the nation for his learning, for his ideals and for his contributions to organized medicine. The book comes from Chapel Hill and that fact alone inspires one to peruse the volume with interest. This means that the book itself has been attractively presented. We give herewith the chapters:

Part One

Medical Morals And Manners
Women And The Doctor
Types of Modern Doctors
The Real Things in Medicine
The Dignity of Medicine

Part Two

Athletics And Scholarship
Muscle
Physical Standards For Women
Physical Morality
Why Golf?

Part Three

Surgical Sense
Surgical Vision
The Philosophy of Surgery
The Humanity of Surgery
The Surgeon's Heritage And Outlook
The Influence of Tradition in Surgery
Surgery And The General Practitioner
Reflections On Forty Years of Surgery
Facts All Should Know About Appendicitis
The Tragedy of Appendicitis
Surgical Service In The State Hospital For The Insane in Raleigh, North Carolina

Part Four

What the Staff's Interest Means to The Hospital
The Hospital Manner
The Ideal Nurse

Part Five

James Marion Sims
Budd of Chatham
Edmund Strudwick, Surgeon
Recollections of The North Carolina Board of Medical Examiners of 1894
Leaves From My Father's Notebook
The Medical Phrases of Victor Hugo
Occasions And Publications of Papers

PHYSICAL DIAGNOSIS: By Ralph H. Major, M.D., Professor of Medicine in the University of Kansas. 457 pages with 427 illustrations. Phila-

delphia and London: W. B. Saunders Company, 1937. Cloth, \$5.00 net.

We have been impressed with the good books coming from the teachers in the Kansas University Medical School. The author has treated his subject in such a way as to inspire renewed interest in physical diagnosis. First of all the author draws freely on the old masters as did Osler and many others and then he supplements the text by four hundred and twenty seven very clever illustrations. Most of these illustrations come from his own large experience as a teacher. This means that we have presented a monograph in the true sense of the word rather than a compilation. The subject matter has been assembled in an attractive way not only to the eye but to the searcher for information in brief but authoritative language. The illustrations have been admirably interspersed throughout the text. One

is inclined to read this book from cover to cover before putting it down. It should prove very helpful not only to the medical student but to the physician in active practice.

TWENTY YEARS' EXPERIENCE IN PUBLIC health is compressed into some 600 pages in *Rural Health Practice*, by Harry S. Mustard, M.D., which the Commonwealth Fund, New York, published on December 31. Dr. Mustard, long identified with the Fund's public health activities as director of the Rutherford County Health Demonstration and as assistant to the commissioner of public health for the state of Tennessee, and now associate professor of public health administration at Johns Hopkins, has brought together a mass of very practical information for the rural health officer and has seasoned it with Charlestonian wit.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

FACTS AND FANCIES

Doctors of South Carolina are interested in obstetrics, and there are signs to indicate that there is a gradual improvement in the way they practice this branch of medicine. More and more women each year go to hospitals to have their babies. More doctors insist on some prenatal care. There are more women referred earlier to specialists and to hospital services for the toxemias of pregnancy.

Interest in obstetrical analgesia and anesthesia is increasing. At the meeting of the second district society in Batesburg in January Dr. T. M. Dubose, Jr., read a paper on this subject. The paper itself was interesting in that it was a recital of the writer's experience with analgesia in his own practice and conclusions and deductions made from that experience. The paper was extensively and interestingly discussed by general practitioners, urologists, and radiologists and other obstetricians. Some ten years ago the present writer read a similar paper before another district meeting, and no one present seemed to be interested in obstetrical analgesia.

A salesman for one of the medical book publishing companies, a company which has pub-

lished little pertaining to obstetrics, recently told the writer that the demand for books of this character had become so general amongst general practitioners that his company was entering the field.

The question naturally follows, if the quality of obstetrical practice is improving, why has this not been reflected in a lowering of the maternal death rate?

This question can only be touched on at this time. It has been said that our high maternal mortality is a rural problem. If this is true, several factors, perhaps, have a bearing on why the mortality remains so high. Country people are less informed as to the value of regular prenatal examination and are much slower to accept advice, if to do so requires hospitalization or added expense. Many of the rural practitioners who are older men who have not been as well trained in obstetrics, and these men are generally so hurried in their efforts both to care for large and scattered practices and to support their families that they are inclined to do many things that should not be done and to fail to do many things which should be done. Younger and better trained doctors tend to locate in the towns and cities.

Increased hospital obstetrics leads to increased temptation to interfere in labor where interference is unwarranted and to perform one's own obstetrical operations, even though a better trained and more experienced consultant be available.

One wonders if the practice of referring obstetrical difficulties to general surgeons, many of whom have had no more training and less experience in obstetrics than the referring physicians, is a factor in maternal mortality. This appears to be a reasonable question, and an analysis of the findings of the committee on

maternal welfare suggested it. Better trained obstetrical specialists are rapidly becoming as accessible as general surgeons in most sections of the State, and their interest and training should be made useful to South Carolina mothers.

The leaven of knowledge permeates slowly, and the greater its need the slower is its diffusion. When those who need it most realize the value of good obstetrical care and know in what it consists, doctors will be prepared to render it. The great problem now is one in education.

SOCIETY REPORTS

FLORENCE COUNTY MEDICAL SOCIETY

The regular meeting of the Florence County Medical Society was held at Hotel Florence, Florence, S. C., 7:30 P.M., January 12, 1937.

After dinner was served, the meeting was called to order and the report of the Syphilitic Committee was accepted.

Following this, Dr. W. S. Lynch, of Lake City, S. C., presented a paper on "Obstetrical Analgesia, Amnesia, and Anesthesia."

(1) In this paper he gave the history of his own and others' experiences with chloroform, ether, morphine, and scopolamine, morphine followed by magnesium sulphate, Gwathmey anesthesia, morphine and scopolamine followed by ether, oil rectal anesthesia, nembutal, nembutalparaldehyde, Dial-Urithrene solution intra-muscularly and intravenously (1 C.C. per minute, can adjust dosage to individual), cyclopain is still in experimental state, procain and other spinal anesthesia no good in obstetrics, evipal not recommended.

(2) Dr. Lynch spoke with favor of the nembutal paraldehyde anesthesia as recommended by Rosenfield and Davenbeth of Boston. In this anesthesia, when the cervix is dilated 3 cm, 4 1-2 grains of nembutal is given by mouth and fifteen minutes later, three more grains are given. The age, weight, etc. of patient varies the dosage. Paraldehyde, 1 1-2 c.c. to each ten pounds of body weight in one ounce of olive oil, is given by catheter rectal tubes past the head in the rectum. Gas or ethylene

anesthesia is used when the head is coming out of the perineum. This type of anesthesia has been most satisfactory in Dr. Lynch's experience and gives a minimum asphyxiation of the babies.

Dr. P. J. Boatwright, of Florence, S. C., presented a paper on "Interesting Diagnostic Pointers in Surgery." Among the interesting points brought out by Dr. Boatwright were the following:

(1) Severe upper abdominal pains and board-like abdomen, due to generalized peritonitis associated with severe pain in the head of the penis.

(2) In the lower abdominal pain group, he mentioned the following:

- a. Two cases of undescended testicles.
- b. Traumatic pain of abdomen due to paralytic ileus, often seen in fractures of the pelvis, relieved by saline irrigation.
- c. Appendicitis pain starting in upper abdomen and later passing down to the right quadrant.
- d. Pelvic emergencies with a history of sudden fainting or sinking spells indicating ruptured ectopic pregnancy or twisted ovarian cysts.

(3) Early diagnosis of osteomyelitis very important.

(4) Surgical infection of the face, hands, and feet needing immediate attention.

Interesting cases seen recently were reported as follows:

(1) Black widow spider bite. (Dr. W. H. Poston and Dr. James Hicks).

(2) Pneumonia complicated by blindness in a four and half year old child. Some recovery of sight to date. (Dr. L. B. Salters and Dr. James Hicks).

(3) Ingestion of twenty-four Pheno-Lax tablets by two and half year old child with recovery. (Dr. L. B. Salters).

(4) Ingestion of Johnson's Liquid Floor Wax with recovery. This wax contains Naphthol. (Dr. J. P. Price).

(5) Typhus fever versus streptococic throat infection. (Dr. James A. Bradley).

(6) Drug samples promiscuously distributed on porches and child ingesting same.

(Dr. James Hicks).

(7) Hinckles pills lead list in accidental death in children in 1930, due to the strichnin it contains. (Dr. J. P. Price).

(8) Allergic abdominal pain attacks relieved by adrenalin. (Dr. W. R. Mead).

After the above program, the following officers were elected:

President: Dr. Lamar Lee, Florence, S. C.

Vice-President: Dr. W. S. Lynch, Lake City, S. C.

Sec.-Treas.: Dr. James A. Bradley, Florence, S. C.

New Delegate: Dr. W. H. Poston, Pamlico, S. C.

James A. Bradley, M.D.,
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TO THE DOCTOR'S WIFE



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THE ROPER HOSPITAL CANCER CLINIC: A REVIEW OF A YEAR'S WORK

By

THOMAS M. PEERY, M.D.,
Charleston, S. C.

The Tumor Clinic Committee was formed in November, 1935, as an outgrowth of the older Roper Hospital Cancer Clinic, and the first regular clinical session to see patients was on December 3, 1935. The group has met regularly twice weekly since that time, excepting holidays, and a total of 94 patients were seen from December 3rd, 1935, to January 1, 1937, a total of 284 patient visits. Practically all patients seen have been through consultation with some other service of the hospital or out-patient clinic. A few patients have been referred to us on their first visit to the dispensary by the Chief of Clinic.

Soon after the beginning of our work, a small fund was made available to us for the purchase of necessary supplies by the Shirras Dispensary. With this money an instrument was purchased for the taking of biopsies, and filing equipment and record forms were secured. Some portion of that fund still remains unallotted.

We have seen a few private cases at the request of the physicians handling the case. To date no charge has been made for these services, but it is hoped that such cases may soon be charged a fee, no part of which shall be taken by the members of the Tumor Clinic Staff, the money being used to purchase new books or periodicals, new instruments, and possibly to

secure the services of a part-time secretary who is badly needed.

Complete records have been kept in our files of all cases, and copies of these records have been added to hospital and dispensary charts, or forwarded to the physician referring the case. These records consist of a complete history, an examination of the tumor-bearing area and, when indicated, of the patient as a whole. (Almost all cases have already had a complete physical examination when first referred to us.) Biopsy and X-ray or radium treatments, follow-up visits, operative procedures and pertinent laboratory data are recorded in full on our records. In case of death with autopsy, the autopsy protocol is also added.

Of the 94 cases seen, 25 have had non-malignant conditions, and were referred because symptoms or signs led to a suspicion of malignant neoplastic disease. Most of these were of the nature of benign cervicitis, chronic mastitis or inflammatory growths. Among these were some of our most interesting cases.

A large, soft, rapidly-growing tumor of the thigh was referred to us as an inoperable sarcoma. Aspiration biopsy revealed merely adipose tissue, and a large lipoma was successfully excised, with return of function of the leg.

Another patient was referred because of massive bleeding from the rectum, with a diagnosis of carcinoma of the rectum. Examination revealed no evidence of tumor of the rectum, and a diagnosis of chronic kidney disease with uremia was made, later verified by blood chemistry determinations and by autopsy.

In the group of malignant diseases, carcinoma of the cervix was the most common lesion, with 16 cases, all proven by biopsy. Of this group of sixteen, three are known to be dead, and two others are probably dead. Most of

From the Tumor Clinic Committee of the Roper Hospital Cancer Clinic, and from the Department of Pathology, Medical College of the State of South Carolina.

these were treated by external irradiation of the pelvis, followed by radium implantation in the cervical canal, according to the most generally accepted technique. Most of these cases have improved remarkably, both objectively and subjectively, with cessation of bleeding and relief of pelvic pain. They have not been followed for a long enough period of time to permit any statement to be made as to end-results. One case, which had previously had a stricture of the rectum and a fistula in ano, developed a recto-vaginal fistula six months after the completion of radium therapy. In view of the history of previous rectal disease, this unfavorable result cannot be assigned directly to the treatment. Many cases treated in this manner have had a mild proctitis, with some tenesmus and with mucus in the feces, but there have been no other serious rectal or other complications.

The second largest group of cases was malignant neoplasms of the breast, including one sarcoma. There has been one known death in this group, that being a case referred to us four years after simple mastectomy for carcinoma, without post-operative irradiation. The remainder are generally in good condition, with an occasional recurrence cropping up and needing either excision or further X-ray treatment. The usual procedure in the handling of these cases has been heavy pre-operative X-ray therapy, followed by breast amputation, usually with dissection of the axilla. Post-operative X-ray treatment is also given.

There have been eight cases of carcinoma of the nose or mouth, and in this group there are three known dead, these having been referred when disease was very far advanced. Generally these cases have been treated by deep X-ray therapy, when possible utilizing the intraoral cone which permits accurate concentration of the dose on the lesion. In other cases radium has been implanted into the tumor; gradually this latter method is being used by us more and more, together with irradiation of the lymph-node-bearing area.

Besides these more common malignant tumors there have been four carcinomas of the penis with one death; three malignant melanomas with two deaths; three sarcomas judged to be of fascial origin with one death; three basal cell carcinomas with no deaths; two

carcinomas of the female genitals with one death; one mixed tumor of the parotid without recurrence after two months; one carcinoma of the lip without evidence of disease after six months; one carcinoma of the bladder with death; one lymphosarcoma with death; one "endothelioma" of the cervical lymph nodes controlled to date by X-ray; one endothelioma of bone that is rapidly progressing downhill; one carcinoma of the cecum which has been lost track of and is probably dead; one multiple myeloma of bone which has been lost track of; one case of Hodgkin's disease which has been greatly improved; one carcinoma of the pancreas which has been lost track of; one questionable tumor of branchial cleft origin that has not been improved; one questionable angio-endothelioma of the skin who refused operative procedure; one questionable primary carcinoma of the liver which has been lost from follow-up and is probably dead. Two very rare tumors have been encountered; in each case the diagnosis not being made until after autopsy: a "carcinoma" of the carotid body and a myosarcoma of the diaphragm.

Of the 94 cases examined and treated, sixteen are known to be dead and several others are thought to be dead. Twenty-four cases have been lost track of, six of these being carcinomas of the cervix, and three carcinomas of the breast.

There is a pressing need in this clinic for the part-time services of a social service worker. While the need is probably not as great as in the management of tuberculosis and other infectious diseases, where the patient is a menace to his companions as well as to himself, still the lack of adequate follow-up is a tremendous disadvantage. We are striving to keep our patients out of the hospital, and most of them have complete diagnostic studies and X-ray treatments carried out through the out-patient department, being admitted only for operation or for radium. But when an out-patient notes apparent improvement in his case, the follow-up is neglected, and this neglect may make the difference between cure and fatal outcome. This is well illustrated by the case of cancer of the breast which died recently. This patient had had both breasts amputated four years before we saw her, and there was carcinoma in one

breast, mastitis in the other. The axilla was not dissected and irradiation was not used. She was apparently completely well for about two years, when pain in one arm gradually appeared. She consulted her physician who treated her for "neuritis," apparently failing to recognize the hard mass in the brachial plexus as a recurrence. Subsequently she has died of wide-spread metastases. If this patient had been seen at frequent intervals, it seems likely that her death could have been postponed.

This is the most discouraging feature of our work: the fact that more than one-fourth of our cases are lost, and the end-results not known. Definite appointments are given each patient at each visit, and this is written down on a slip and given to the patient to serve as a reminder. This is as far as we can go.

There is another point about the follow-up of cases which is worth mentioning. Those of you who lecture in the medical school could certainly stimulate interest in your student group if malignant neoplasms of different parts of the body were readily available for demonstration. The wide and varied nature of our cases has been mentioned already, and from this large group it would be possible to illustrate well the early carcinoma, the direction of metastasis, the effect of surgery and X-ray. These are valuable aids to the student which he is apt to completely miss, because students are not present at Tumor Clinic sessions at the present time, and because the number of tumor cases seen in the various departments of the dispensary is apt to be small. If a social service worker were provided, we would be able to loan our patients for class demonstration.

The lack of adequate photographic equipment is also a great handicap, as it is in all departments. In tumors of the exterior of the body there is no other possible record which can take the place of good serial photographs. We have had these taken, where possible, at our own expense; but needless to say, the fact that we must pay for photographs out of our own pockets prevents us from getting as many as we would like and as many as are needed.

We have no criticism for the cooperation which we have received from the other services of the hospital and dispensary. Generally this

cooperation has been the best, and this is especially true of the gynecological department. However there are a great many cases of suspected neoplasm, especially of the interior of the body, which we are not called to see.

We are frequently requested to see patients after the tumor in question has been operated on or removed. While we want to see such cases, it would be more advantageous, at least to us, if we were allowed to see the patient preoperatively, so that we can obtain an accurate picture of the extent of the disease, and so that proper records can be made, to be used as a guide in follow-up.

Frequently we see a patient whose neoplasm is extremely far advanced, and for whom we can hold no hope of relief by any method at our disposal. We have come to regard these cases in this light: try to make the patient less uncomfortable, without too much attention to the prolongation of life. We can see little advantage in prolonging a life of misery without easing the pain.

We have used the biopsy wherever possible, and believe that information is gotten by this procedure which it would be impossible to obtain otherwise. Besides satisfying our idle scientific curiosity, we have found that the biopsy is a definite guide to therapy. It serves to differentiate the inflammatory from the neoplastic processes, and the benign from the malignant tumor. And within the malignant tumor group, the classification and grading of the tumor histologically are excellent guides in prognosis.

We have also used the aspiration biopsy to a considerable extent in subcutaneous and deeper tumors, following the technique of the Memorial Hospital group in New York, with slight modifications. In this procedure, a large bore needle on a syringe is introduced directly into the tumor mass, suction is applied, and the needle is moved back and forth several times within the tumor in an effort to fill the needle with a plug of tumor tissue. The needle is then withdrawn, its contents emptied on a slide, smeared, stained and examined. Although the slides are frequently difficult to interpret, with increasing experience the procedure is getting more and more valuable. By this method we were able to make an accurate diag-

nosis in at least two cases where the diagnosis had not been suspected before. It is essential that the pathologist studying such material be advised as to the clinical nature of the case; preferably he himself should examine the case and make the aspiration. This personal acquaintance with the case will help to overcome the handicap which so small an amount of tissue imposes. Reports must be cautiously made when in doubt, and the case should then be handled as it would have been without an aspiration. In most cases the aspiration has served merely to verify the clinical diagnosis. In no case have we definitely called a benign tumor malignant, or a malignant tumor benign on aspiration biopsy.

The advantages of such a procedure are obvious. It is particularly applicable when a suspected tumor is to receive X-ray treatment before operation. Ordinary incisional biopsy in such a case will interfere with X-ray treatment, as tumor tissue seems to remain viable in the region of a granulating wound although it may be destroyed elsewhere. The procedure is also applicable to bone tumors, where exposing the bone and removing a formal biopsy would be approached with a great deal of caution. To date, in our experience and in the experience of others, I know of no deleterious effect which has resulted from the use of the aspiration biopsy. (This procedure must be differentiated from the aspiration of fluid from the chest or abdomen and studying the cells so obtained. Under such circumstances the opinion is based on the appearance of single cells and is seldom reliable in either a positive or a negative way; in the aspiration biopsy as we are using it, small plugs of tissue are studied, not isolated cells.) From the viewpoint of the

patient, aspiration is certainly preferable to incision for biopsy of deep-seated tumors.

The importance of early diagnosis has been stressed so often that it is trite to mention the matter again. But we are forced to admit that not only is the patient delinquent in presenting himself for examination, but the physician is frequently slow to recognize the condition. To illustrate this fact, we have recently lost a case by death, a sarcoma of the thigh, which was first seen by a physician many months before, and the small nodule on the thigh was incised because it was thought to be an abscess. Another patient, with a malignant melanoma of the face, had repeatedly asked her physician about having the lesion removed, but was told to "forget it." And a third, a case of malignant bone tumor which is now near death, was seen in the dispensary 18 months previously with a swollen, painful arm which was treated with salicylates. It must be admitted that the diagnosis is frequently difficult, but in each of these instances the lesion must have been suspicious even at the first visit, and, while the actual nature of the lesion could not be definitely known, surely it should have been suspected and the patient should have been carefully watched.

We believe that the Tumor Clinic Committee of the Roper Hospital Cancer Clinic has justified its existence. The clinic is now listed as an approved cancer clinic by the American College of Surgeons, and is the only approved cancer clinic in the two Carolinas.

We hope that we have not only accomplished some good directly, but that we have served to make the local profession somewhat more "cancer-conscious."



COLUMBIA HOSPITAL TODAY

SYMPTOMS CALLING FOR AN ANORECTAL EXAMINATION, AND A BRIEF DESCRIPTION OF THE DIFFERENT STEPS

By

W. H. POSTON, M.D.
Pamplico, S. C.

The care of anorectal conditions finds itself in the hands of one of four groups.

The first of which is represented by the medical profession in general as these conditions present themselves along with other every day findings. By them these conditions are not generally looked upon as are diseases in other organs of the body, and the diagnosis is generally confined to conditions of a very gross character and the treatment usually limited to divulsion for fissures and other painful conditions, clamp and cautery for very large hemorrhoids, lancing abscesses, cutting fistulae through from the external opening including the sphincter into the bowel opening, some of the undercutting operations for some of the intractable cases of pruritus ani and prescribing of ointments and suppositories for almost all conditions.

The second group is represented by those men of the profession who have made the treatment of diseases of the terminal bowel a highly specialized branch of medicine. They look upon these organs as they would any organ of the body, realizing that they have a very important duty to perform and that although it may seem that these tissues are to a great extent immune, they do become infected, either primarily or secondarily, and when this takes place the results are not different from those resulting from infections elsewhere.

The third group into whose hands these cases may fall, although very few in this country are very numerous in other sections, is the advertising quacks. These men in some of our nearby states do an enormous business, the result of their various advertising schemes. This has been made possible to a large extent by the neglect of the medical profession of these diseases.

The fourth group is composed of a very large per cent of sufferers from anorectal diseases, who for a lack of knowledge of something bet-

ter do do, go through life chronic sufferers. These people treat themselves with some of the hundreds of patented pile ointments, or with some pet treatment recommended by some friend for all manner of troubles, all of which are diagnosed as piles.

An anorectal examination coming up to a standard set by the best proctologists requires a knowledge of the minute anatomy, also the functions and pathology of these organs. A painstaking and gentle investigation, with a working knowledge of the various procedures used to make such an examination possible.

Few of us doing general work will become expert in making such an examination. We can, however, refresh our minds upon the anatomy and differential diagnosis and by inspection and digital examination alone be able to diagnose many of the more common conditions found in this location.

We are all prone to inquire and examine for symptoms referable to the mouth, throat, lungs, heart, kidneys, and other locations in our search for disease and forget entirely this very common location of disease.

We, as physicians, I feel are largely responsible for the neglect people are guilty of in reference to diseases of the anorectal region. We usually forget or for other reasons fail to inquire as to symptoms of this location; therefore, when we pass up as insignificant or discount these symptoms, it is only natural that our patients do likewise. It is an exception and not the rule, that symptoms referable to the terminal bowel are placed on a parity by either the physician or patient with similar symptoms anywhere else in the body. A man or woman will suffer rectal pain, bleeding, and many other discomforts without a murmur, whereas the same symptoms anywhere else will alarm the whole family and no amount of trouble or expense will be spared to find a means of immediate relief.

Then what symptoms shall we say call for an anorectal examination? Louis J. Hirschman in his latest book just off the press says: "It has been estimated that one patient out of every seven is suffering from some disease, the relief of which will be assisted or entirely accomplished by the treatment of pathological conditions discovered only upon a rectal examination." If this estimate is a correct one, then an

anorectal examination is very, very frequently called for.

The more common symptoms calling for an examination are: pain, swelling, bleeding, elevations, irritations, itching, tenderness, discharges, protrusions, burning, tickling sensations, departure from normal of bowel movements, history of a foreign body having been swallowed, especially with a history of pain in the lower bowel, feeling of weight or fullness in the anus or rectum, trauma, and many other conditions.

Other symptoms of a general character calling for an examination of this region (quoting Hirschman): "are more remote evidences of diseased conditions whose focus of infection originate within the confines of the lower bowel are, disturbed digestion, menstrual irregularities, irritability of the urinary organs, headache, backache, sciatica, neuritis, anemia, and even acne and asthma."

Cecil D. Gaston says, "In many patients anorectal consciousness is an indication for anorectal surgery." If this be true, and undoubtedly it is in nervous patients, then anorectal consciousness is an indication for an examination.

In our search for foci of infections the anorectal region should never be forgotten, for it is a known fact that infections do remain here over long periods of time. There is no logical reason to explain why absorption of toxins does not take place from these infections or that they act as foci from which other infections are fed. These conditions many times will be found to account for nervousness in patients when no other cause can be found elsewhere.

Having decided that we have sufficient symptoms to warrant an examination of the anorectal region, the patient is placed on a table in one of the many positions, usually the right or left lateral (or some other according to the likes of the examiner), the legs drawn up well to the body and the hips well over to the edge of the table for examination of the external parts and digital examination of the anal canal and lower rectum as well as the internal inspection of this area. Where an examination above this is to be made, the position of choice is the Hane's position. One not having a table convertible to enable this position, can use the knee-chest position. In hospitals, the Hane's position can be easily had by placing the patient's thighs

across a hospital bed with his body hanging down to the floor, supporting himself on his elbows on a pillow placed on the floor. With the patient on the table the examination is begun by inspecting the external parts. An assistant or the patient himself with his own hand pulls the upper nates up while the examiner with one hand pulls the other down, thus allowing free exposure for inspection with the aid of a good light, which may vary according to the wishes of the examiner, leaving free the other hand of the examiner to be used as needed. The anus, perianal region, perineum, buttocks, and the external genitals, should be inspected, noting discolorations, excoriations, protrusions, elevations, depressions, swellings, cracks, eruption, crusts, scars, discharges, and other abnormalities.

Protrusions will be found to be protruding internal hemorrhoids, polyps, enlarged papillae, prolapsed mucous membrane of the rectum or a prolapse of the rectum with all of its coats and other tumors, including malignancies.

Elevations will consist of abscesses, external hemorrhoids, swollen skin folds of pruritus and showing characteristic radiations, external openings of fistulae, etc.

Having concluded the examination of the external parts, keeping in mind the patient's most prominent symptoms and noting all abnormalities as the examination proceeds, the next step is the digital examination of the anal canal and lower rectum as high as the index finger will permit. This is done in the same position or in the Hane's position.

The digital examination should, by all means, precede any instrumentation, the reasons for which are obvious. The examining finger should be the means by which many conditions are first detected; viz., low strictures, fecal impactions, anal ulcers, malignancies, polyps, enlarged papillae, abscesses, and many other conditions.

The index finger gloved or finger cotted, well lubricated, is gently inserted into the anus and the normal curves of the canal followed, in passed up noting first the resistance offered by the sphincters, whether a decrease or an increase. As the finger passes up it should be turned from side to side, sweeping around the entire circumference of the canal. Diminished

resistance of the sphincter denotes injury, congenital weakness, *tabes dorsalis*, or other spinal disease. Increased resistance is due to spasm of the muscle caused by some irritation, painful conditions or strictures, due to various causes. In sweeping the finger around the circumference of the canal note the soft velvety feel of the membrane and any departure from this, elevations, depressions, indurations, strictures, or other obstructions. It must be remembered that the usual internal hemorrhoid is a very collapsible mass or tumor when not engorged with blood or thickened by inflammatory processes; so even large hemorrhoids will often escape detection by the examining finger which strips them of their blood contents on its way up, fecal impaction, etc., absence or presence of feces of normal amount and its location. For this reason an enema should not precede the first examination. Any search for painful conditions need not be extended too high up, for most of these will be found in the first two and one-half inches from the outlet. A point to remember is that sometimes in inserting the finger, hemorrhoids, polyps, papillae, and other masses will be pushed up to a higher level than they belong, giving the examiner the wrong impression of their location; therefore the examining finger on being withdrawn should be made to repeat its manipulations. This is often found more valuable than the examination going up.

In women very often a combined vagino-rectal examination is very valuable in locating many conditions. Very often the anus can be everted by proper pressure from within the vagina.

When there are painful conditions present or where for other reasons there is irritability of the sphincter, causing an examination to be too painful, the sphincters and parts can be relaxed by means of proper local anaesthesia. This should be resorted to in these cases, for if your patients are hurt during the examination, they, in all probability, will not come back; besides, very little information can be had from such an examination with no cooperation by the patient undergoing such a painful ordeal.

Watching an examination of this kind conducted by one expert in its execution is very interesting, and at times it is surprising to wit-

ness what a trained finger will find. Many times conditions which necessitate careful search are to be seen with the eye.

Very often when there is history of protrusions that cannot be demonstrated in any other way, if you will have the patient to assume the squatting position and make straining efforts as at stool, he will succeed in forcing out the mass. This is especially true in internal hemorrhoids and in prolapse of the rectum. This fact is taken advantage of to prevent the prolapse after treatment by the injection method of large protruding hemorrhoids and prolapse of the rectum, especially the latter in small children, by having them assume the standing position for bowel evacuation.

The visual inspection of the anal canal and lower rectum as stated above is best carried out in the lateral position. Many use the dorsal or Hane's position. It is only a matter of preference. If the knee-chest or Hane's position is used it is very important to remember that in this position hemorrhoids are drained of their blood to a large extent, thereby giving evidence of being much smaller in size than would appear if examined in a recumbent position. The instruments needed for inspection of the anal canal and lower rectum are anosopes with slide opening alone, with obturator and slide, oblique opening at the end with obturator or a plain straight-ended instrument like the Kelly obturator, a crooked silver wire probe for probing sinuses, ulcers, etc., a pair of forceps, cotton and a good light.

With the patient on the table, the instrument of choice well lubricated is put into the anal orifice, is passed upward and forward until well within the anal canal, when the instrument is directed backward and upward until the desired level is reached.

Keeping in mind the symptoms for which the examination is made and the information already obtained from previous stages of the same, the examination by visual inspection proceeds as follows, depending upon the instrument in use. If an instrument of the open end type is used, the usual procedure after inserting the instrument its entire length and removing the obturator, inspection is begun at the upper level, coming on down as the instrument is withdrawn. Manipulations are made with

the instrument so as to bring into view the entire surface. If the slide type of instrument be used, the slide is withdrawn, exposing that portion of the lining opposite the window opened. This may be the entire length of the instrument or that portion exposed by the removal of the slide. When there are no large hemorrhoids or tumors to be caught in the window or painful conditions preventing, the instrument can be rotated around the entire circumference of the canal and inspection made as the open window comes opposite the different surfaces. This is seldom done, however, but the instrument is withdrawn and reinserted for each field examined. All types of instruments have their advantages and all are used, sometimes in the same examination. It should be remembered that a digital examination should precede, as stated above, any instrumentation, and that to proceed farther than two or three inches unguided by actual vision should not be done.

The procedures just described are not confined to examination alone for diagnosis but are in frequent use for treatment purposes and for the purpose of obtaining tissue for biopsy. The entire canal can be inspected and various conditions found.

The following conditions may be demonstrated: Normal or enlarged papillae, normal or infected crypts of Morgagni, anal valves, anal fissures, ulcers, polyps, the pectinate line, which is a very important landmark especially in doing injections for hemorrhoids and in locating painful conditions, internal hemorrhoids, sliding mucous membranes, variations in coloring of parts, proctitis, internal openings of fistulae, small fistulae or sinuses leading from infected crypts, internal openings with escaping pus from an internal rupture of preanal or perirectal abscesses, bleeding points from various causes, and many other conditions including malignant and benign growths. Many times during an examination it is very valuable to have the patient strain down. This increases the size of hemorrhoids so as to be seen which would be overlooked otherwise.

What has been said refers only to an examination of the anal canal and say one or one and one half inches of the lower rectum. When an examination is desired farther up, the position of choice is the Hane's position and a much longer instrument is needed of the open end

and obturator type, which may be the expensive lighted ones with an inflation bag, or plain inexpensive ones of the Kelly type, depending upon the training and ability of the examiner. The best demonstrations that I have seen were where the very plain and inexpensive instruments were used.

With the patient in the Hane's position, with the proctoscope or sigmoidoscope well lubricated, with the aid of an assistant on the opposite side of the table, the buttocks are separated, the instrument is entered into the anal canal as described above, as soon as the canal is passed, the obturator is removed and under direct vision the passage is made upward very gently, using little pressure, the examiner being guided into the lumen by the use of inflated air, a long applicator on which is wound a small amount of cotton, and manipulations with the instrument.

It is, of course, necessary in an examination of this kind to have the lower bowel empty and as clean as possible. This is best done by an enema given long enough before hand to be voided. The advantages of the Hane's position (or knee-chest position which is best substituted) is that the abdominal organs are pulled upward, the lower bowel is straightened out as it were, and as soon as an opening is made the canal fills with air.

By careful manipulation under direct vision, the instrument is passed on up its entire length. Particles of feces, mucus, etc., are wiped out from time to time, as they appear with cotton on an applicator. The inspection is made while the instrument is being withdrawn, manipulating same so as to bring every part of the canal lining into view, noting any abnormal conditions present.

My experience has been that people do not object to an anorectal examination. It is true that we are usually taught from earliest childhood to look upon this location as a part of the body of a very private nature, to be concealed. The genital or reproductive organs are also looked upon as very private in nature, but very little neglect is seen in disease affecting these organs compared to those of the terminal bowel. The timidity is to a great extent in the physician and not in the patient. This is an old custom handed down by our predecessors which we have been willing to carry along.



DR. ROBERT C. BRUCE
Greenville
President South Carolina Medical Association,
1936-37

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APRIL, 1937

A NEW JOURNAL FROM CHARLESTON

American medical publications first appeared as early as 1677. The earliest American journal came out in 1790, and not long afterward in 1803 the first South Carolina product was published. This Charleston Medical Register succumbed shortly, as did its three successors, so that from 1877 there was no journal published

in the state until 1905, when the Journal of the South Carolina Medical Association appeared. Now a new member of the medical journalistic family is about to emanate from Charleston.

"The Review of Tumor Therapy" is to be a monthly journal which will soon begin its career. It is to deal with malignant diseases only, and aims to give practical information regarding treatment by gathering the most recent methods from the largest centers and presenting them in handy form. It will carry articles, reports, and studies of an applicable nature, and will provide a department of abstracts. The staff of fifteen contributing editors will include such men as Harris of Mt. Sinai, Geschickter of Johns Hopkins, Seelig and Fischel of St. Louis, Brunschwig of Chicago, and Stewart of Atlanta. The compiling staff consists of Hillyer Rudisill and J. H. Hoch of Charleston.

The prospectus of this journal is of pleasing form. A handy feature lies in the arrangement whereby the pages are punched and may thus be kept in any ordinary binder.

The subscription price of the "Review" is \$5.00 a year and its address P. O. Box No. 850, Charleston.

The editorial staff of The Journal of the South Carolina Medical Association welcomes heartily this new aid to the collection and diffusion of knowledge of a most important medical subject, and takes pride in the enterprise of its originators.

We are glad to give space for the prospectus of the new Journal elsewhere in this issue.

J. I. W.

THE EIGHTY NINTH ANNUAL SESSION OF THE SOUTH CAROLINA MEDICAL ASSOCIATION, COLUMBIA, APRIL 13, 14, 15, 1937

On the call of the Charleston profession the South Carolina Medical Association was organized there, February 14, 1848. It appears that Dr. Samuel Fair was the only physician from what was known then as Richland District present. A tabulation of the physicians in the State at that time gave Charleston District 140 doctors and Richland District 18 doctors.

Immediately following the organization Dr. R. W. Gibbes of Columbia became prominently

identified with its activities and was one of the first delegates to the American Medical Association which had been organized only one year before our own State Association. These two men were the only active physicians from the Columbia area at first but later Dr. Joseph S. Crane was appointed to important committees. Dr. Gibbes was Vice President of the Council in 1854 and suggested that an extra meeting of the Association be held in Columbia on the first Wednesday of July 1854. This was the first meeting held in Columbia. It was the policy to have after that all of the regular meetings in Charleston during the winter and extra meetings at various points in the State during the summer, thus providing two meetings a year.

At the meeting held in Charleston, February 5, 1857, Dr. R. W. Gibbes was elected President of the South Carolina Medical Association. The great Civil War came on in 1861 and the Association was silent for ten years, and then came the reorganization meeting in Charleston, May, 1869. At this meeting several Columbia physicians took an outstanding part. Dr. A. N. Talley occupied the Chair as temporary Chairman when the reorganization was effected and was elected President. Under his Presidency the Association appears to have abandoned the idea of having all of the annual meetings in the City of Charleston, and therefore the first regular session thereafter was held in Columbia, March 9, 1870. From that day to this Columbia and the medical profession there have played an important role in the development and progress of the South Carolina Medical Association.

Every few years there has been a unanimous desire on the part of the members of the Association to return to the Capital City, and each time the attendance grows larger and the scope of the program more extensive. Aside from the geographical location of the city as the terminus of a wonderful system of roads there are many other attractions, medical, social, and historical. We are indebted to several friends of the Journal for excellent write-ups of many of these inspiring attractions.

The program in detail has been mailed out to the members, and as will be seen there are

a number of unusual features. We are always interested in the guests invited by the President to present scientific contributions. For a number of years the effort has been made to secure Dr. Morris Fishbein, Editor of the Journal of the American Medical Association for one of our meetings but without success. Now Dr. Fishbein will spend two days with us and speak on a number of occasions. Then we have the eminent dermatologist, Dr. A. B. Cannon, of Columbia University, New York.

The laying of the corner stone of the new half million dollar building at State Park by the Grand Lodge of Masons marks an epoch in the history of South Carolina in the fight on the great white plague.

The Association has sponsored many public health meetings in the various cities of the State, but this time a record breaking crowd is anticipated with Dr. Morris Fishbein speaking on one of the most intriguing subjects of modern times, Food Fads and Follies. Many other features of the program put on by the scientific committee are notable for their timeliness and scientific importance.

The entertainment committee of the Columbia Medical Society in cooperation with the Women's Auxiliary have arranged for a number of social affairs for the enjoyment of every member present. The President's reception and ball on the evening of April 14 is the crowning event of the whole series of entertainments. It is hoped and believed that the eighty ninth session will surpass all others held anywhere in the State.



SOUTH CAROLINA BAPTIST HOSPITAL
Opened Sept. 1, 1914, under the management of
South Carolina State Baptist Convention



NEW BUILDING—SOUTH CAROLINA TUBERCULOSIS SANATORIUM, STATE PARK
Cost \$500,000.00; fifty-five per cent from the State forty-five per cent from the Federal Government
Corner stone to be laid April 14, 1937

COLUMBIA, S. C.

By ROBT. B. MOBLEY, *Assistant Secretary*
Chamber Commerce

Columbia, just as our National Capital does, enjoys the distinction of having had its site carefully chosen, and being laid out and built along a predetermined plan. In 1785 a resolution was adopted by the General Assembly of the State of South Carolina, meeting in Charleston, the Capital of the State at that time, to have a committee investigate the feasibility of locating the seat of the government at some central point in the State. On March 22, 1786, a bill was passed authorizing the laying off of a tract of land on the Congaree River for the use of the State. Thus was Columbia born. This central location is a characteristic shared by no other capital in the nation. Commemorating the one hundred and fiftieth anniversary of the founding of Columbia as the Capital of the State, there was held last year a most successful Sesqui-Centennial Celebration, which included a pageant, "the Spirit of Columbia," declared by all who saw it one of the most fitting occasions of its kind ever given in the Southeast. Included in the bill establishing the capital, was a provision that the streets of the "town" be not less than sixty feet wide, and that the two principal streets running through the centre of the "town" at right angles be not less than one hundred and fifty feet wide. This, in part, accounts for the present advantageous lay-out of the city.

Besides its strategic position almost at the geographical centre of the State, Columbia, from the viewpoint of the tourist, is equally advantageously situated. Being located at the converging point of two of the country's most traveled highways, U. S. No. 1 from the East and U. S. 21 from the North, and also U. S. No. 76, over which travelers from Western and North-Central sections are finally directed into the Southeast, Columbia has established itself as the logical stop-over city for thousands of travelers each year, especially the tourists as they journey to and from their winter and summer homes. A real thrill awaits the traveler who has the privilege of spending a long or short time in the City of Columbia,

the Capital of the proud State of South Carolina.

Here one may find a delightful mingling of the old and the new, the inspiration of history and tradition and the bustle of progressive business. The excellent hotels, with a price range to fit the travelling budget of everyone; a wonderful system of roads, said to be one of the best in the United States; beautiful golf courses; large and small bodies of water designed for the perfect fishing holiday; a most equable climate; all combine to make of this charming Southern City a veritable haven for the discriminating traveler.

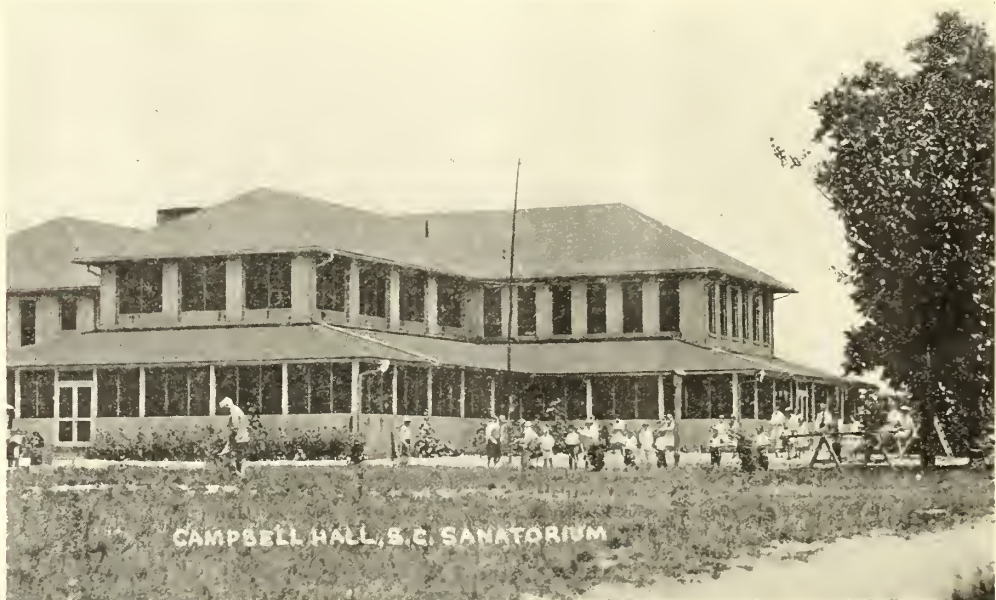
For those whose interest lies in the field of history, there are reminders of the best in the development of the nation. Here one may see, by crossing the river, the type of forts which made it possible for our ancestors to win freedom from England. The First Baptist Church is sometimes called the cradle of the Confederacy, for in it in the year 1860 the first Secession Convention met, and the framing of the Ordinance of Secession was begun. Equally inspiring is Trinity Episcopal Church, a beautiful example of Gothic architecture, and copied after Yorkminster Abbey. In Trinity's Churchyard are found the graves of heroes of the Revolution and the War Between the States—General Wade Hampton of Revolutionary days, General Wade Hampton of the Confederate forces, General Petter Horry, and others. The literary renaissance of the South had its roots in this city and in the same churchyard is found the grave of Henry Timrod, South Carolina's distinguished poet. In the churchyard of the First Presbyterian Church are the graves of the mother and father of Woodrow Wilson, and the grave of Ann Pamela Cunningham, who was the originator of the movement to restore Mount Vernon and make of it a national shrine. The First Presbyterian Church is another beautiful example of Gothic architecture. In Columbia are found some of the outstanding examples of the buildings designed by the famous architect, Robert Mills, who designed

the Washington Monument and several of the government buildings in our National Capital. The first structure of the State Hospital for the Insane was designed by Mills. The boyhood home of Woodrow Wilson is open to the public under the supervision of the American Legion and the American Legion Auxiliary. It was designed by his mother and built by his father, who at the time was a teacher in the Columbia Theological Seminary.

Not often does a tourist, vacationist, or convention delegate leave Columbia without visiting the State House. Erection was begun in 1855. The granite used in the construction was quarried in the immediate vicinity of Columbia. Its architectural design is similar to that of both the White House and the National Capitol in Washington. Marks of cannonading by Sherman's troops from the opposite side of the Congaree River can be seen on the west side of the State House. The burning of the old frame State House, which was situated near the new one, also left its scars. In the midst of the fifty or more species of trees which beautify the grounds, there are located several monuments erected to the memory of some of South Caro-

lina's illustrious statesmen and soldiers. These, together with the Confederate Relic Room within the State House, and the history of the building itself, offer material for several hours profitable inspection.

Outstanding in the way of modern achievement or progress are Saluda (Dreher Shoals) Dam and Lake Murray. The dam was completed in 1930 at a cost of more than \$20,000,000.00. Its immensity is difficult to realize until one has actually viewed it. It is 7,838 feet long and has a base width of 1,105 feet. From rock elevation to the top, it is 208 feet in height. The lake is 47 miles long and has a maximum width of 14 miles. It has already become one of the most popular of the fishing resorts, and several hundred boats of all types ply its waters. The Veterans Hospital, with a capacity for 300 patients, was completed in 1932 at a cost of \$1,300,000.00. Construction work, which will double the capacity, is now in process. The Columbia Township Auditorium, with a seating capacity of 4000, is one of the finest in the South, and since its completion, no convention has been too large for Columbia to entertain.



CAMPBELL HALL—CHILDRENS' BUILDING

Erected by Legislative Appropriation, Secured Through the Efforts of the SOUTH CAROLINA FEDERATION OF WOMENS' CLUBS and THE FARM WOMENS' COUNCIL

COLUMBIA A MEDICAL CENTER

BY DR. ROBT. E. SEIBELS

The development of Columbia as a medical center has been a logical outgrowth from several circumstances: its central location, the development of transportation facilities with increasing accessibility, the fact that it is the seat of the state government, have all prepared the way. The number of good hotels and progressive merchants have made it easy for the patient to find his way here; and the development of hospital facilities and specialists in the various fields of medicine and surgery have more than kept abreast of the times.

As early as 1833 a preparatory school of medicine was inaugurated by Dr. Josiah Clarke Knott and Dr. Robert W. Gibbes. In the middle of the nineteenth century Dr. Alexander Nicholas Talley and Dr. Benjamin Walter Taylor served the Confederacy with brilliant distinction and at the close of the war achieved notable success in the practice of medicine and drew their clientele from neighboring counties. Dr. John Thomson Darby was professor of anatomy and surgery at the University of South Carolina from 1867 to 1874, and his abilities achieved recognition in his appointment as professor of surgery at the University of the City of New York, which position he held from 1874 until his death. In 1868 Dr. Josiah Fulton Ensor was appointed Medical Purveyor for the Freedmen's Bureau in South Carolina and shortly afterward was made superintendent of the State Hospital for the Insane, which institution he served most capably and with such devotion that, it is noted, he put up the collateral to secure funds to take care of the patients when the legislature failed to make the necessary provision.

The Medical Society of Columbia held its first recorded meeting on Monday, March 1, 1854. The destruction of the city likewise destroyed the records, and the Society re-organized in June, 1865, and became a component part of the American Medical Association in 1904. The membership at present includes all white physicians of Richland County whose qualifications are satisfactory, and numbers one hundred and thirty-five, of whom twenty-seven, having been members for more than thirty years, have become Honorary Fellows.

The Columbia Hospital had its inception at an organization meeting on May 24, 1892, and the formal opening was held November 1, 1893. The original surgical and medical staff was composed of Dr. A. N. Talley, Dr. B. W. Taylor, Dr. George Howe, and Dr. A. L. Gaubert, assisted by Dr. T. M. DuBose, Sr., Dr. W. M. Lester, Dr. A. Earle Boozer, and Dr. Frank W. Ray, of whom Dr. T. M. Dubose, Sr., alone survives.

"During its early years, the hospital was a community project in the fullest sense, thus the report of the treasurer in 1901 showed income from 'gifts, entertainment, boxes in hotels, offerings from all the churches, and an annual contribution of \$1,000.00 from the city.' Among the disbursements for that year it is of interest to note that the matron's salary was \$140.00."

Additional facilities have been added from time to time so that at present the hospital consists of two hundred and seventy-five beds with separate accommodations for colored patients and a training school for white and colored nurses.

The following statistics for 1936 are of interest in showing the growth of this institution:

Total patients admitted:

White	5324
Colored	1151
Total	6475

Pay patients

White	3637
Colored	137

Part Pay Patients

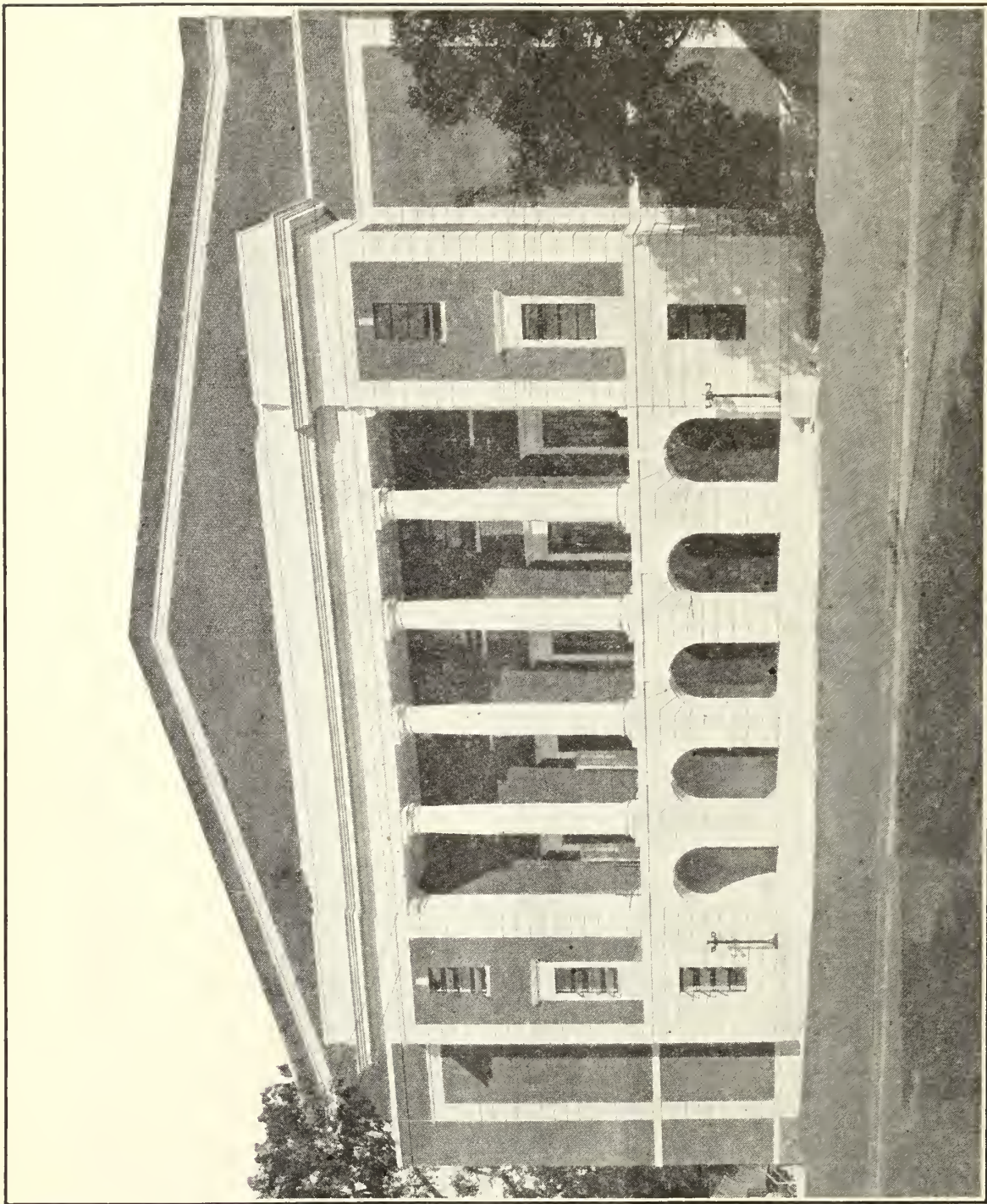
White	870
Colored	200

Free patients

White	778
Colored	795

Out patients

Supervisors	15
Internes	5
Resident physician	1
Nurses	104



COLUMBIA TOWNSHIP AUDITORIUM

The South Carolina Baptist Hospital (formerly Knowlton Infirmary) was purchased by the South Carolina Baptist State Convention and was opened under their management September 1, 1914. The medical and surgical facilities are well illustrated by the following statistics:

Total number patients for 1936	2556
Estimated pay patients	50%
Part pay patients	35%
Free patients	15%
Outdoor department patients	2452
Nurses	63
Graduate nurses	12
Superintendents on duty	9
Internes	1

Waverley Sanatorium was founded by Dr. James Woods Babcock in 1914. He had been superintendent of the South Carolina State Hospital from 1881 until 1914, and achieved international distinction in his early recognition of pellagra and its cause, being associated with Lombroso in Europe and Lavender and Goldberger of the United States Public Health Service in this country, in their combined efforts to make this disease recognizable and preventable. This sanatorium for the treatment of mental and nervous diseases has facilities for the care of thirty-six patients. Three hundred and eighty-nine patients were admitted during 1936. Dr. Babcock chose a location just outside the city limits on a big estate with lovely trees and almost unlimited grounds in order to provide restful quiet in an ideal location for these patients.



BIRDS-EYE VIEW—LOOKING NORTH FROM THE ADMINISTRATION BUILDING

THE SOUTH CAROLINA SANATORIUM FOR TUBERCULOSIS PATIENTS

By MRS. I. L. CAIN, *Field Secretary
Tuberculosis Work, State Board of
Health, Columbia, S. C.*

In his annual report to the South Carolina Legislature of 1913 the State Health Officer, Dr. Jas. A. Hayne, called the attention of that body to the menace of tuberculosis and recommended the establishing of a state sanatorium as an important step in the program of control: "The most feasible plan for the control of the disease is that of a central hospital * * * where patients may be taught how to take care of themselves and how to prevent others from catching the disease from them. * * This legislature has a splendid opportunity to earn the lasting gratitude of the people of this state by seriously considering this subject and doing something for these poor victims of the great white plague." Sponsored by the Hon. George E. Rembert, representative from Richland County, a bill was introduced that same year providing the funds for the building of the first unit in the South Carolina Sanatorium. This building, a ward for white women, was opened in May, 1914; other buildings soon followed.

In 1920, through the efforts of Mrs. George E. Rembert, aided by contributions from the Negroes of the state totalling \$8,000.00, a ward for adult Negroes was provided. The South Carolina Federation of Women's Clubs and the South Carolina Council of Farm Women inaugurated a campaign to secure a ward for the care of children, and through their efforts an appropriation was secured from the state legislature of 1927 to erect Campbell Hall, the furnishings for the building being a gift from the two organizations. DuRant Hall, a sixty bed infirmary for white women, was built and furnished in 1929 by the members of the Masonic Order in South Carolina, which two years previously had given a ward for white men.

In grateful recognition of what had been done for them an organization among the patients known as "The Sunshine Club," under the leadership of Miss Nannie Eidson and Miss Alice Frierson, started a fund for the erection

of a Chapel and Community Building, which was completed in 1933.

The latest addition to the plant is a fire proof building now being constructed at a cost of a half million dollars, the funds being supplied through a state bond issue sponsored by Hon. John F. Williams, Senator from Aiken County, and Federal Funds secured through the PWA, of which Mr. J. L. M. Irby is the State Director.

Since its beginning the Sanatorium has been under the supervision of the Executive Committee of the State Board of Health as trustees and of Dr. Ernest Cooper as superintendent. Under this able direction the hospital has grown from one 16 bed building to an institution of 19 buildings caring for over 500 patients, including provision for both white and Negro adults and for white children.

However, the value of the institution lies not alone in the care and training given to the cases actually domiciled, but in the removing of potential foci of infection from contact with family, friends, and the public in general. In addition, the patients coming from every county in the state and from every walk of life, go out from the sanatorium as real missionaries in the cause of public health, many of them serving as nurses, as public health workers, and in various institutional positions.

For a number of years the Sanatorium has been a special protege of the Ancient Order of Free Masons of South Carolina. Under the leadership of the two Past Grand Masters, Hon. Charlton DuRant and O. Frank Hart, and of the present Grand Master, Joseph E. Hart, the Order has manifested its interest again and again not only through many substantial gifts but through constant cooperation with those who are working for the development and the maintenance of this humanitarian institution.

THE SOUTH CAROLINA STATE HOSPITAL

By DR. C. F. WILLIAMS
Superintendent

The South Carolina State Hospital, one of the oldest institutions for the care of the mentally sick in America, is located within the city limits of Columbia only a few blocks from the business section of the town.

The corner stone of the first building of this



THE STATE HOUSE OF SOUTH CAROLINA

institution was laid on July 12, 1822, South Carolina being the fifth state in the Union to make provision for its citizens who become mentally ill. Since this beginning the institution has grown to where its buildings in the city of Columbia now cover approximately 12 city blocks and a corresponding amount at State Park, where all of the colored patients are now cared for.

The grounds of the hospital in Columbia have been greatly beautified and have become one of the show places of the city.

There are, all told, 3,947 patients cared for in the hospital. Of this number, 985 are white men, 939 colored men, 1,118 white women, and 905 colored women. With the employees, the hospital constitutes a real city in

itself, having a population of 4,597.

Several buildings have recently been added, and the psychopathic building is now nearing completion and will be open within the next month or two. It was hoped that it would be possible to open this building on April 15 at the time of the meeting of the State Medical Association, and announcement was made to this effect in the preliminary program printed in the Journal—but unexpected delays arose which will prevent its being opened at this time. The building, however, will be opened sometime prior to June 1. This building, which will be the reception service for the institution, is modern in every respect and fully equipped with the necessary appliances for modern therapy.

ADMINISTRATION BUILDING
South Carolina State Hospital for the Insane

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

ADVISORY COUNCIL

Dr. E. A. Hines	Seneca, S. C.
Dr. George Bunch	Columbia, S. C.
Dr. W. B. Ward	Rock Hill, S. C.
Dr. Roderick MacDonald	Rock Hill, S. C.

OFFICERS

President, Mrs. T. R. W. Wilson	Greenville, S. C.
President-Elect, Mrs. Jesse O. Wilson	Spartanburg, S. C.
First Vice President, Mrs. T. R. W. Wilson	Greenville, S. C.
Second Vice President, Mrs. C. C. Atrial	Greenville, S. C.
Recording Secretary, Mrs. David Garvin	Ridge Springs, S. C.
Corr. Secretary, Mrs. R. M. Pollitzer	Greenville, S. C.
Treasurer, Mrs. T. A. Pitts	Columbia, S. C.

COUNCILLORS

Mrs. J. C. Brown	Walterboro, S. C.
Mrs. Price Timmerman	Batesburg, S. C.
Mrs. W. L. Pressley	Due West, S. C.
Mrs. Henry Heinitch	Spartanburg, S. C.
Mrs. W. R. Blackmon	Rock Hill, S. C.
Mrs. Richard Baker	Sumter, S. C.

STATE CHAIRMEN

Student Loan Fund, Mrs. L. O. Mauldin	Greenville, S. C.
Student Loan Fund, Co-Chairman, Mrs. C. P. Corn	Greenville, S. C.
Student Loan Fund, Treas., Mrs. Warren White	Greenville, S. C.
Jane Todd Crawford Mem., Mrs. Riddick Ackerman	Walterboro, S. C.
Public Relations, Mrs. John Fleming	Spartanburg, S. C.
Publicity, Mrs. Jenkins Mikell	Columbia, S. C.
Hygeia, Mrs. W. C. Abel	Columbia, S. C.
Historical, Mrs. H. M. Stuckey	Sumter, S. C.

ANNUAL CONVENTION OF THE WOMAN'S AUXILIARY

Information

The members of the Auxiliary to the Columbia Medical Society extend a cordial invitation to the wives of the members of the South Carolina Medical Association to be their guests for the Twelfth Annual Convention of the Auxiliary to the South Carolina Medical Association, and its attendant social affairs, to be held in Columbia, April the thirteenth, fourteenth, and fifteenth, nineteen hundred and thirty-seven.

Student Loan Fund Committee, 8 P. M., Tuesday, April 13, Mrs. L. O. Mauldin, Chairman, Presiding.

The Executive Board will convene on the evening of April thirteenth at eight thirty in the private dining room of the Jefferson Hotel.

The meeting of the Auxiliary will be in the Crystal Room of the Columbia Hotel the morning of April 14th. This promises to be an excellent convention under the able leadership of Mrs. T. R. W. Wilson, Greenville, S. C., and we hope it will be possible for all members to attend. We are indeed fortunate to have secured Mrs. Robert E. Fitzgerald, President

of the Woman's Auxiliary to the American Medical Association, as guest speaker.

Following the morning meeting the Columbia Auxiliary will entertain the convention at luncheon in the ball room of the Columbia Hotel. At this affair Mrs. Haggard, President of the Woman's Auxiliary to the Southern Medical Association, will be the speaker.

From five to six the afternoon of the fourteenth there will be a tea at the home of Mrs. I. Jenkins Mikell, 120 Edisto Ave.

At ten-thirty, Thursday morning, April fifteenth, there will be a garden and historical tour of Columbia.

All ladies attending the convention are asked to register, upon arrival, either in the lobby of the Jefferson Hotel or the Columbia Hotel. There will be hostesses at each Hotel for your convenience and as a source of information.

All members of the Auxiliary and visitors are most cordially invited to be present at the Luncheon and Reception and to attend the program meeting of the Auxiliary. Also, the Public Health Meeting to hear the very fine address of Dr. Morris Fishbein, Editor Journal American Medical Association. Dr. Fishbein is one of the most dynamic speakers in America, and his address on Wednesday evening will be one of the high lights of the convention.

Subject—"Food Fads and Follies."

April 15—10:30 A. M. a tour to places of historical interest, also to the lovely gardens for which Columbia is noted. Tour will be directed by Mrs. Thomas Pitts.

CONVENTION CHAIRMEN AND PAGES

Chairmen

General Chairman, Mrs. A. Izard Josey.
Luncheon, Mrs. Theodore J. Hopkins.
Reception, Mrs. O. B. Mayer, Mrs. William Weston, Sr.
Registration and Credentials, Mrs. Graham Shaw.
Chairman of Convention Assembly Rooms, Mrs. Robert E. Seibels.
Publicity, Mrs. Jenkins Mikell.
Honor Guests, Mrs. Walter J. Bristow.



COOPER HALL S. C. TUBERCULOSIS SANATORIUM
COMMUNITY BUILDING
Erected Through The Efforts of the Patients

Music, Mrs. E. L. Horger.
Transportation, Mrs. B. H. Baggott.
Hostess Chairman, Mrs. F. M. Routh
Garden Tour, Mrs. Thomas Pitts.

Pages

Mrs. T. M. Dubose, Sr., Honorary Chairman.
Miss Mary Boyd
Mrs. Eugene Patterson
Miss Helen Taylor
Miss Helen Powe, daughter of Dr. and Mrs. W. H. Powe, Greenville, will serve as Page to the State President, Mrs. T. R. W. Wilson.

Cutchins read a poem entitled, "1936," and Mrs. L. R. Poole read, "Every Year." Mrs. Jeans distributed papers, and told everyone to answer the "Guess What?", which were slogans of advertisements. At the end of a limited time there were several ties, and a drawing was held, Mrs. Cutchins winning the lovely china bowl as the prize.

Mrs. Kitchens then invited her guest into the dining room, where a bountiful buffet luncheon was served.

Mrs. William B. Furman
Press & Publicity Chairman.

PICKENS COUNTY AUXILIARY

The Pickens County Medical Auxiliary held their January meeting at Six Mile, at the home of Mrs. J. W. Kitchens.

Mrs. J. L. Bolt, the President, called the meeting to order, and Mrs. J. L. Valley conducted the devotional reading from the third chapter of Phillippians, 13-21st verse, followed by prayer.

After a business meeting and the reciting of the Creed, Mrs. R. P. Jeans had charge of the program. She read an interesting article on "The Mayos of Rochester." Mrs. J. H.

COASTAL MEDICAL AUXILIARY

Mrs. A. Ritter, Jr., President of the Coastal Medical Auxiliary, was hostess to the members at her home in Ridgeland last Thursday, January 14. Marking the meeting was a number of interested guests. Among them were Mrs. Herman Hartz, County Public Health Nurse; Mrs. W. O. Bedingfield, Mrs. Elliott Wilson, Mrs. George Olmstead and Mrs. Schwabb, wives of four prominent Savannah physicians and surgeons. The membership attendance for the meeting totaled 14.

An interesting program was made more so

when Dr. Ritter, of the Ritter Hospital, made an address on "Live Long and Be Happy." Dr. Ritter spoke briefly on heart conditions and diseases. Mrs. Black preceded him with a paper on "Digitalis."

Miss Grace Perry presented two readings, "White Elephant Land" and "The Bride and Groom." During the reading of the reports of the various committees, the members of the auxiliary heard the delegates' reports from the National meeting in Baltimore. Mrs. Elliott Wilson spoke to the members of the Coastal organizations, telling them of the meetings of the auxiliary in Savannah.

Following the business session and the program, the ladies retired to the Palmetto Grill, where they were served a turkey luncheon.

New members of the organization are Mrs. Carl Larissey, of Beaufort, and Mrs. Guyton, of Walterboro.

COLUMBIA MEDICAL AUXILIARY

The auxiliary to the Columbia Medical Society met Tuesday morning, March 2, in the Girl Reserve club room at the Y. W. C. A. activities center.

Miss Leila Johnson, of the school for social work, at the University of South Carolina gave an interesting and informative talk on "Medical Social Work." Mrs. I. Jenkins Mikell read some interesting information from the National Medical Auxiliary News.

Mrs. Izard Josey, convention chairman, gave necessary information relative to the annual convention of the auxiliary to the South Carolina Medical Association which is to be held in Columbia, April 13, 14, and 15. Fine reports were given by Mrs. Robt. E. Seibels, grass seed

chairman; Mrs. O. B. Mayer, public affairs chairman; and Mrs. Thomas A. Pitts, who gave the Hygeia report for Mrs. George H. Bunch, chairman. Mrs. P. Eugene Payne, chairman of the azalea sale, was unable to give her report because of illness but sent word that the sale was a success.

After the business session, Mrs. R. G. Smarr, Mrs. E. L. Horger, Mrs. G. B. Carrigan, Mrs. R. S. Matthews, Mrs. G. B. Bullock and Mrs. W. T. Beckman served delicious refreshments.

RIDGE MEDICAL AUXILIARY

The Ridge Medical Auxiliary held its February meeting in Dr. W. P. Timmerman's office. The president, Mrs. David Garvin, presided. The meeting was attended by its members from Ridge Spring, Saluda, New Brookland, and Batesburg. Dr. Louise Ballenger was welcomed into the Auxiliary. Reports were given by the Public Relations chairman, Student Loan Fund, and Hygeia. Mrs. O. P. Wise read an excellent paper on the Remedial Value of Herbs. Delegates were elected to the State Auxiliary. The Auxiliary was invited by the Medical Association to the Summerland Hotel, where they listened to a very helpful address by Dr. B. O. Whitten of Clinton. A delicious supper was served.

Radio Parties

The Ridge Medical Auxiliary sponsored several listening-in parties Tuesday afternoon when the American Medical Association was on the air. Dr. Paul A. Teschner gave a talk on First Aid for Broken Bones. Those who listened felt the address was very timely, practical, and quite worth while.

Mrs. E. C. Ridgell, Secretary.

GREENWOOD COUNTY MEDICAL SOCIETY

The Greenwood County Medical Society is very active, meeting every fourth Thursday night of each month with an average attendance of twenty five. Last December Dr. W. J. Holloway was elected President, Dr. B. H. Morgan, Vice President, and Dr. J. M. Symmes, Secretary.

The January meeting was with Dr. J. P. Williamson, Ware Shoals, S. C. A very inter-

esting scientific session was led by Dr. Williamson on Endocrinology, Obesity, and allied subjects.

The February meeting was held at Ware Shoals also, entertained by Dr. J. B. Workman. Drs. Jack Jervey and Mordecai Nachman, of Greenville, gave instructive papers. Visitors were Drs. Jervey, Nachman, Crooks, and Carpenter of Greenville, and Dr. T. H. Symmes of St. Matthews.

J. M. Symmes, M.D., Secretary.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

LOCAL QUININE THERAPY IN CASES OF
OF INTESTINAL KERATITIS AND OLD
CORNEAL OPACITIES*Dr. Elias Sclinger*Archives of Ophthalmology, May, 1935,
Page 829

In a paper read before the Chicago Ophthalmological Society on Nov. 19, 1934, I reported the methods and results of local quinine therapy in trachoma. The rationale of the quinine therapy is that quinine, besides being a bactericide and an astringent, is a protoplasmic poison which penetrates deeply into the tissues when applied locally to mucous membranes.

Experiments showed that 2 per cent and 4 per cent quinine bisulphate ointment, a ten per cent aqueous solution of quinine bisulphate, can be applied locally daily for many months without any harmful effects on the conjunctive, cornea and other ocular tissues.

In interstitial Keratitis this regular anti-syphilitic treatment must of *course* be used, also the local treatment; atropine, hot dressings, dark glasses and other rational methods to control and prevent complications.

He used a 2 per cent quinine bisulphate ointment twice daily in three cases of interstitial keratitis, with benefit. This benefit, he said, was due to the slight anesthetic effect of the quinine which helps the subjective symptoms, a decrease in the inflammatory reaction, from the quinine decreasing the accumulation of lymphocytes and other abnormal cells in the

deep corneal layers, thus lessening the infiltrate or opacity.

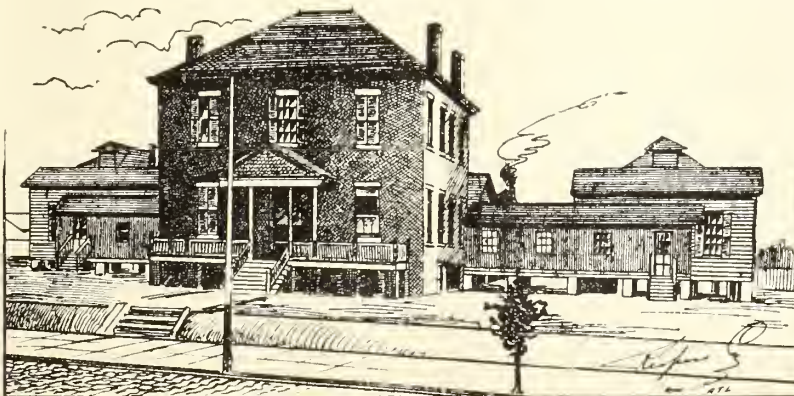
The quinine penetrates deeply even into the aqueous humor. The 2 per cent quinine bisulphate ointment also produces some clearing—improvement in vision—in cases of old corneal opacities.

The following drugs are among the antagonists and incompatibles of quinine and for that reason should not be used while the patients are being treated with quinine: copper, lead, zinc, mercury, and their compounds; ammonia, alkalis, iodides and bromides, and their salts; tannic acid and lime water. Among the synergists are iron, arsenic, and mineral acids.

Quinine, an alkaloid, besides being a bactericide and an astringent, is a protoplasmic poison which penetrates deeply into the tissues when applied locally to mucous membranes. It destroys leukocytes and lymphocytes and probably causes the absorption of abnormal tissue elements, such as newly formed connective tissue in the cornea. Quinine bisulphate ointment has a favorable influence on the course of interstitial keratitis and promotes clearing of old corneal opacities.

I have found the 2 per cent quinine bisulphate ointment of benefit in some cases of catarrhal ulcers of the cornea.

The Eye, Ear, Nose and Throat Monthly, February, 1937, page 19, has an editorial on quinine therapy in eye diseases, in which the benefit of quinine in eye diseases is emphasized.



COLUMBIA HOSPITAL IN 1895



MILLS BUILDING

The First Structure of the South Carolina State Hospital for the Insane. Designed by Robert Mills, The Celebrated Architect.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

EFFECT OF IODINE IN ADENOMATOUS GOITER

The beneficial response to iodine in exophthalmic goiter and in hyperthyroidism with nodular goiter, no doubt is the cause for its more or less indiscriminate use in other types of thyroid disease, without realization that at times it may be harmful. Such effects are considered in some detail by Drs. A. S. Jackson and H. E. Freeman of Madison, Wisconsin. (J. A.M.A. 106:1261, April 11, '36). Iodine continued over a long period of time in cases of exophthalmic goiter may not only cease to be beneficial, but may even become harmful, increasing the thyrotoxicosis. These patients are called "iodine fast." Likewise iodine administered to patients with non-toxic adenomatous (nodular) goiter may induce a definite hyperthyroidism. The term iodine hyperthyroidism has been suggested as best describing

this entity. Kocher recognized it years ago and described it as iod-Basedow's disease. The danger of inducing hyperthyroidism by iodine administration seems to obtain only in a diseased gland, likely only in those of an adenomatous (nodular) nature, for it is well recognized that great quantities of iodine can be tolerated by patients with normal thyroid glands.

The authors further state that not all cases to toxic adenoma respond favorably to iodine, but that some are affected adversely by it. With this opinion there is considerable dissention. In their experience 62 per cent of all cases of toxic adenoma are benefitted by iodine while 38 per cent are made worse.

They conclude that iodine should not be given to patients with non-toxic thyroid adenomas; that the term iodine hyperthyroidism is a clinical entity; and that the aqueous solution of iodine has an inconstant effect in toxic adenomas.

PUBLIC HEALTH

BY DR. B. F. WYMAN, M.D., COLUMBIA, S. C.
DIRECTOR OF RURAL SANITATION, STATE BOARD OF HEALTH

NEW TUBERCULOSIS CONSULTANT SERVICE FOR PHYSICIANS

*State Clinician with Mobile X-ray Unit
Furnished by Board of Health*

Believing, along with Detroit, Saranac Lake, and other sources of authority, that the only effective method of eradicating tuberculosis is through an intensive program of early case-finding and hospitalization, the State Board of Health of South Carolina has inaugurated a new service of Field Clinics with a travelling X-ray and fluoroscopic unit, which it sincerely hopes will be of invaluable service to the private physicians as well as citizens of the State. The State Board of Health wants it distinctly understood at the outset that this service is in no way antagonistic to the general practitioners, but is offered chiefly as a consultant service for helping them to find early cases of tuberculosis, particularly among their indigent patients. (The upper brackets can afford to pay for their X-ray pictures from private sources, but the clinician will be glad to consult with the local physician on plates already made if it is so desired.) Unfortunately, there is not available, even through Social Security funds, enough money to furnish this service absolutely free. Furthermore, it is not the policy of the State Board of Health to pauperize the citizenry of the State. Therefore, the charge of \$1.50 has been designated for each picture made. It is also realized, however, that many patients will be unable to meet even this small expense. In such instances there are several possible courses of action. In our State there are several charitable organizations with representatives in nearly every community, some of which specialize in fighting tuberculosis, who will be willing to assume this small obligation for worthy cases within their knowledge. Civic organizations and clubs will often help. This part of the work is, of necessity, purely a local problem and must be handled locally in the way which appears best to the local personnel, as the designated charge is sufficient to cover the cost of materials only; no charge is made for the consultant service, nor

for the use of the X-ray or fluoroscopic equipment. On the other hand, the State Board of Health is so anxious for this program to be of utmost benefit to all persons within the State, that the further arrangement has been made for those indigents who can not be handled in any other way, whereby they may obtain X-ray pictures without cost by presenting a written statement of their indigency, signed by the County Health Officer.

The Clinic Service, as proposed by the State Board of Health, may be secured through the County Health Departments by having them make formal application to the State Clinician, Box 1, State Park, S. C. Though this service is offered primarily for the assistance of the physicians of the State, it is necessary to have some form of systematic control of the clinics, and it is felt that the County Health Departments serve as the best medium through which to arrange clinics.

If this program is to amount to anything helpful it will be because of the co-operation of the private physicians. The follow-up work will necessarily be largely in their hands, and in whatever measure they assume this responsibility, by that amount the State's population will be benefited. Films will be read and reports gotten out from a central location as promptly as possible. There will be recommendations for the disposition of each case on its own merits, and it is hoped that with the existing facilities at State Park, and the enlarged facilities already under construction there, there will be room for all tuberculous persons needing sanatorium treatment.

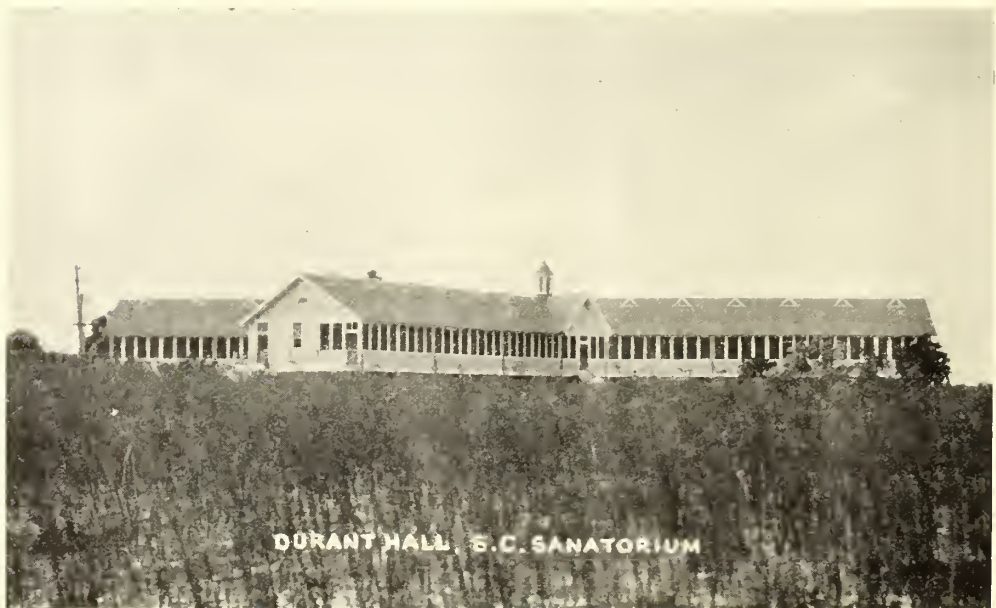
Now just a word of warning about children reported to have childhood type of tuberculosis. This should never be confused with adult or pulmonary tuberculosis. Of course it is recognized that pulmonary tuberculosis can exist in the chest of a child, and such cases require the same, or even more intensive treatment as those cases in adults, but the childhood type *per se* is the frequent finding under the present discussion. It manifests itself as enlarged glands about one or both hila, calcium deposits

in the lung, especially the hila, (open to some argument, but space is too limited here), and a positive skin reaction to intradermal tuberculin. These findings frequently remain into adult life and gradually lose their significance as one's age progresses. For this reason we set the arbitrary age of fifteen or sixteen as the time at which to stop reading chest films as showing childhood type of tuberculosis. It is admitted further, however, that about three or four per cent of cases of childhood tuberculosis will eventually come down with pulmonary or adult type. Therefore the childhood type usually does not require hospitalization; it usually does not require that a child be put to bed for a continuous stay, nor that he in any way be invalidated. It merely means that the child has gotten tubercle bacilli into his system, either through milk or through human contacts, in sufficient numbers to produce abnormal shape and size to the lymph glands about the hila of the lungs. This child requires a moderately increased amount of rest, plenty of fresh air, especially in sleep, moderate amounts of out-

door exercise, and plenty of nourishing food. He should be guarded against excessive fatigue, undue exposure, and debilitating diseases. He should have frequent, periodic, X-ray examinations in order to determine his progress, and to detect any tendency toward pulmonary tuberculosis which may develop later. He is somewhat of a potential tuberculosis sufferer, though by no means an actual one. If he receives enough proper care as outlined above, he will probably reach adolescence and adulthood quite unharmed.

Let it be emphasized, in conclusion, therefore, that the State Board of Health is offering this consultant service to the physicians in a great effort to decrease the incidence of tuberculosis in our state and it is only through the closest co-operation of physicians and State facilities that this program can reach its maximum usefulness.

John M. Preston, M. D.
State Tuberculosis Clinician
State Park, S. C.



DURANT HALL—WOMAN'S INFIRMARY
Erected by a gift from the South Carolina Grand Lodge of Masons

SOCIETY REPORTS

MEETING OF JANUARY 26th, 1937

Minutes of the Regular Meeting of the Medical Society of South Carolina, held Tuesday, January 26th, 1937, at 8:30 P.M., at the Roper Hospital

The meeting was called to order by the President, Dr. W. Atmar Smith.

In addition to the members the following guests were present:

Dr. R. E. Baker, U.S.N., Dr. McIlwane, Dr. Kinard, and Dr. Stultz of the Medical College.

The minutes of the preceding meeting were read and confirmed.

A letter of application for membership from Dr. Arthur L. Rivers was read and referred to the Board of Censors.

Dr. Cathcart reported for the Committee on the Ross Estate as follows:

January 12, 1937.

To the President and Members of the
Medical Society of South Carolina.
Gentlemen:

"The Committee on Ross Estate begs to report that there has been no change in the settlement of matters pertaining to this Estate during the past year.

"Our receipts and disbursements during the past year appear in the Auditor's report as made by the Board of Finance."

Respectfully submitted,

(Signed)

G. McF. Mood,

A. J. Buist,

R. S. Cathcart,

Chairman,

W. Atmar Smith,

President, Ex-Officio

The new members of the Society, Drs. Linton, Lassek, and Wood, signed the Constitution.

Mr. Mood, Chairman of the Board of Commissioners, handed to the President the Audit of the Roper Hospital for 1935.

Dr. Mood then read the following letter:

ROPER HOSPITAL
Charleston, S. C.

January 26, 1937.

The Medical Society of South Carolina,
Roper Hospital,
Charleston, South Carolina.

Gentlemen:

"At the regular meeting of the Board of Commissioners of the Roper Hospital held this afternoon at 5:00 P.M. the following resolution was passed:

"The Board of Commissioners, having received instructions from the Medical Society to establish a Contraceptive Clinic, the Board desired to know if this is to be a function of the Medical College of the State of South Carolina as under the present agreement between the College and the Medical Society for the conduct of clinics, or conducted as an independent clinic under control of the Board of Commissioners."

Yours very truly,

(Signed) F. O. Bates, Secretary.

Upon Dr. Rhame's request, the original instructions of the Society to the Board of Commissioners concerning the Birth Control Clinic were read by the Secretary.

Dr. McCrady stated that he was in favor of having the Board of Commissioners control this clinic.

Dr. Cathcart pointed out that such clinics had not yet been officially endorsed by the American Medical Association or the State Medical Association, and made a motion that the Report of the Committee on Birth Control Clinic be referred back to the Committee for reconsideration.

This matter was discussed by Drs. Cain, Mood, Cathcart, I. R. Wilson and Robert Wilson.

The motion was then passed by the Society.

Dr. Mood then read letters concerning the gift of approximately Five Thousand Dollars for the establishment of a Birth Control Clinic.

In discussion, Dr. Prioleau moved that the gift be acknowledged with thanks and that the

donor be advised that the matter is still under consideration.

Dr. Cain offered an amendment that the stock certificate representing the gift be returned temporarily to the intermediary of the donor, and Dr. Mood offered a further amendment that negotiations be carried on through the intermediary, Mrs. Albert Simons.

The motion with the amendments was then passed.

Under Special Order of Business Dr. Cathcart present the report of the Board of Finance as follows:

January 12, 1937.

To the President and Members of the
Medical Society of South Carolina,
Gentlemen:

"The Board of Finance begs leave to submit as their annual report a certified audit of the books of the officers and committees:

Audit of the books of the Board of Finance,
Audit of the books of the Committee on Ross
Estate,

Audit of the Treasurer's books of the Medical Society,

Report regarding the Minute Book of the Secretary of the Board of Finance.

"We are glad to report that all 1936 coupons have been paid. The coupons of the Town of Cheraw reported last year have been paid in full, and the coupons of the City of Georgetown have been readjusted and paid.

"The Board calls attention to the fact that on account of some of our bonds maturing, they had to be re-invested. To invest those in safe securities we necessarily had to take a lower rate of interest and pay a premium in the purchase of the bonds.

"Also, to re-adjust some of our high peak maturity dates, these securities had to be exchanged. Owing to these conditions the income of the Society has been reduced during the past year.

"Regarding the Legerton Bequest, which you referred to your Board with power to act, this Bequest was refused and was reported to the Society at a previous meeting.

"The status of the Cohen Bequest is still being considered by our attorney and the attorneys for the Estate.

"All of the above is respectfully submitted."
(Signed)

G. McF. Mood,
J. S. Rhame,
R. S. Cathcart,
Chairman,
W. Atmar Smith,
President, Ex-Officio

Dr. Rutledge moved that this Report be received as information and the thanks of the Society extended to the Board.

This was seconded and passed by the Society.

Dr. Johnson moved that the Chair appoint a Committee to draw up suitable resolutions on the death of Dr. Finger.

The Chair appointed Drs. Maguire, LaRoche, and J. J. Ravenel.

The Scientific Program consisted of a paper by Dr. Leon Banov entitled "The Private Physician and Public Health."

This paper was discussed and commended by Drs. Mood and Robert Wilson.

The meeting then adjourned.

Respectfully submitted,

J. I. Waring, M.D., Secretary.

EDISTO MEDICAL SOCIETY

The regular meeting of the Edisto Medical Society was held at the Eutaw Hotel in Orangeburg Thursday, January 21, 1937, at 2:00 P.M.

After being served lunch President L. P. Thackston introduced the visiting guest, Dr. Kenneth M. Lynch, Professor of Pathology at the Medical College of the State of S. C., who addressed the society on "Aneurysms of the Cerebral Arteries." He discussed their anatomy, etiology, and symptoms, and gave case report demonstrating autopsy specimen. Dr. Lynch also spoke of the financial condition of the Medical College, urging that we see our respective legislative delegations relative to increasing the school's appropriation.

Officers for the new year were elected as follows:

President—Dr. M. L. Nelson, North, S. C.

Vice-President—Dr. A. W. Lowman, Denmark, S. C.

Secretary-Treasurer—Dr. H. M. Eargle, Orangeburg, S. C.

Delegates to the state convention:

Orangeburg County: Dr. J. W. Harter, Dr. W. L. Mack. Alternates: Dr. J. A. Forte, Dr. L. S. Felder.

Calhoun County: Dr. T. H. Symmes. Alternate: Dr. H. Raysor.

Bamberg County: Dr. L. A. Hartzog. Alternate: Dr. H. J. Stuckey.

After the new president took the chair, he appointed the various committees for the new year. After a further brief business session the society adjourned. Seventeen members paid dues for the new year.

H. M. Eargle, Sec.

Edisto Medical Society.

RIDGE MEDICAL SOCIETY

The Ridge Medical Society met in Dr. W. P. Timmerman's office, Monday night the fifteenth at 7:20 o'clock with a good attendance.

Dr. Garvin told of a case which another physician narrated of having heard the cry of an unborn child in its mother's uterus. This caused some merriment, but none of those present acknowledged having had a similar observation.

The Secretary read a number of communications, the most important of which was the one from Mrs. Lewis A. Griffith concerning her generous donation of books and surgical instruments. Resolutions of appreciation of Mrs. Griffith's donation were passed unanimously. Dues were paid by most of the members.

The following named were elected delegates to the meeting of the State Medical Association in April in Columbia:

Dr. J. N. Crafton for Edgefield County, R. F. D., Modoc, S. C.

Dr. D. B. Frontis for Saluda County, Ridge Spring, S. C.

Dr. W. W. King for Lexington County, Batesburg, S. C.

The delegates were authorized to select their alternates.

The Ladies Auxiliary also met in one of Dr. Timmerman's offices and had a larger attendance than usual. After the transaction of their business meeting they went to the Summerland Hotel as guests of the Ridge Medical

Society, where an elegant lunch was served, and heard Dr. B. O. Whitten, Superintendent of the South Carolina Training School, deliver an excellent instructive address on mental behaviours with special reference to the training of children and the proper methods of directing them.

All present voted their appreciation of Dr. Whitten's address, and many voiced their pleasure and appreciation at meeting with us.

Mrs. W. P. Timmerman, Councilor for this District, was ill and unable to attend the meeting.

All were pleased that Mrs. O. P. Wise was able to meet with us. Different ones inspected Mrs. Griffith's donation and seemed delighted with it.

W. P. Timmerman, M.D., Secretary.

RIDGE MEDICAL SOCIETY RESOLUTIONS

Whereas, Mrs. L. A. Griffith, of New Brookland, widow of the late Dr. Lewie A. Griffith a native of Lexington County, who located in Columbia and who had an extensive practice and other large business interests and who was also Mayor of Columbia, donated a large number of expensive and valuable medical books and surgical instruments to the Ridge Medical Society, with Dr. W. P. Timmerman as custodian, for the use of the reputable doctors of the counties of Saluda, Edgefield, and Lexington.

Therefore be it resolved, by the Ridge Medical Society in regular meeting assembled, that we wish to assure Mrs. Griffith of our high appreciation of this valuable donation and of her confidence in us, but we appreciate the more highly the noble motive so characteristic of the donor.

Resolved 2nd. That a copy of these resolutions be furnished Mrs. Griffith and that a record of same be transcribed in our minutes for permanent record.

Resolved 3rd. That we have these resolutions published.

Resolved 4th. That our every good wish shall always attend her and her family.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT NO. 330 (36499)

*Case of Drs. Speissegger, Finger, Chamberlain,
Richards, and Smith*

Student Gettys (presenting case):

Negress, 28 yrs. in 1936, housewife, first admitted in May, 1933, numerous subsequent admissions, the last in Oct., 1936; death Nov., 1936.

History: Apparent onset about 1921 with sharp precordial pain on exertion and some dyspnoea. About 1929 (?) had severe attack of tonsillitis with fever, lasting about 3 months. About the same time (dates on various charts do not agree) she became very nervous, and had uncoordinated movements of upper and lower extremities. Dyspnoea on exertion became more conspicuous about 1930, and was frequently nocturnal. Cough appeared slightly later and has been intermittently noted since. Migratory joint pains in 1931, and probably some years before, although records disagree. Frequent hemoptyses in 1936, during time of severe dyspnoea, when cough was always most severe. Hb. 47 per cent (D) in 1933. Edema of feet and ankles noted frequently since 1930, and was present on most admissions. Frequent precordial pain on exertion, especially during attacks of dyspnoea and edema. Regular in rate and rhythm through 1935, irregular during three admissions of 1936. B. P. in 1933 130/100, normal usually on charts. Three weeks before final admission developed cough with hemoptysis, dyspnoea, progressive swelling of feet and abdomen. Vomiting several times a day and profuse diarrhoea were also noted.

Exam. (10 28-36): Temp. 97, pulse 84, resp. 28, B. P. 100/80. Cheyne-Stokes respirations. Fairly well developed and nourished. "Sclerae yellow." Teeth carious and foul. Pulsations of "carotid" noted in neck. Chest: Dullness in both bases, breath sounds diminished in bases posteriorly, with rales. Breath sounds normal over rest of lung area. No widening of mediastinum on percussion. Heart: Diffuse pulsation over left chest wall. Apex beat felt in mid-axillary line in 5th interspace. Diastolic thrill over precordium. Heart enlarged downward and outward on percussion. Sounds very irregular, pulse deficit of 15 per minute. Systolic murmur at apex, transmitted over precordium. P2 greater than A2. Abdomen much distended, dullness in flanks. Liver about 2 finger breadths below costal border. "Slight hemorrhoids." Feet and legs very edematous and pit on pressure.

Laboratory: Urine (10-29) specific gravity 1.013; alb. 2 plus; sugar acetone and casts neg; leukocytes (voided spec.) 10 per HPF, no RBC. Blood (10-29) Hb. 62 per cent; RBC 3,040,000; WBC 8,500; ach-

romia 1 plus; polys 52 per cent; lymphs 46 per cent, monos 2 per cent.

Course: Temp. very irregular, usually about normal, but occasionally rising to 100, subnormal for last three days. Pulse (presumably at wrist) 90-120, pulse deficit 15-25, not recorded for last 12 days. Temporary improvement for a few days after admission then gradual exaggeration of previous symptoms (cough, dyspnoea, precordial pain, edema of legs and vulva, distention of abdomen). Died 11-25-36.

Dr. Robert Wilson (conducting): Mr. Seastrunk, will you discuss this case? I see on the record that you had the case on the ward.

Student Seastrunk: The history that this patient gave varied with each admission. She told me definitely that she had migratory joint pains in 1921 as well as in 1931. At any rate, she had precordial pain, nocturnal dyspnoea and dyspnoea on exertion, swelling of the feet and abdomen, cough and hemoptysis.

On examination she was found to have a systolic murmur over her precordium, and with that we think of a rheumatic heart, which can explain almost all her symptoms. The heart was very irregular in rate and rhythm, and there was a marked pulse deficit. Her irregularity must have been present at least six months, and any irregularity of 6 months duration is very apt to be an auricular fibrillation. The systolic murmur, the auricular fibrillation and the history are very strongly suggestive of rheumatic heart disease with decompensation.

Dr. Wilson: Did I understand you to base your diagnosis chiefly on the systolic murmur?

Student Seastrunk: I didn't mean to base it on that alone; the history is just as important. Without the history, rheumatic heart disease would have to be considered, but it could not be diagnosed. If we didn't have the history, subacute bacterial endocarditis would have to be considered. I think syphilis can be ruled out easily, as syphilis of the mitral valve is so rare.

Dr. Wilson: Mrs. King, will you continue the discussion?

Student King: In this case, with a history of an acute infectious disease lasting three months, and with a course such as this, we must diagnose rheumatic heart disease. The heart was enlarged downward and outward on percussion, and there was a systolic murmur. The history, the murmur, and the enlarged heart give to me a clear-cut picture of rheumatic heart disease. I think that her death was a slow one, from congestive failure.

Dr. Wilson: In the absence of a rheumatic his-

tory, could you make a diagnosis of rheumatic heart disease?

Student King: That would be the most likely diagnosis in one with a valvular lesion of this type, in one as young as she is, but the diagnosis would be somewhat uncertain without the history.

Dr. Wilson: What do you mean by rheumatic heart disease?

Student King: An acute infectious disease which attacks the heart, especially the mitral valve, and which also affects the synovial and periarticular tissues and the subcutaneous tissues.

Dr. Wilson: What you and Mr. Seastrunk have done from the physical examination is to make a diagnosis of mitral valvulitis, and, in as much as the majority of the cases of mitral valvulitis are rheumatic, to make the diagnosis of rheumatic heart disease. That line of reasoning is quite justified.

At one time, according to one of the old charts, this patient had a presystolic murmur which was not apparent on this admission. What would such a murmur have meant to you, Mr. Seastrunk?

Student Seastrunk: That would have meant mitral stenosis.

Dr. Wilson: Why do you think that that murmur was not heard at this time? Surely the organic background for this murmur must have been present still. Mrs. King?

Student King: The myocardium was much weaker at this stage, and the heart sounds were not as strong.

Dr. Wilson: What would that have to do with it? Why, Mr. Seastrunk?

Student Seastrunk: At this stage we doubtless have a dilated heart, which may mean that the heart valve was no longer stenotic.

Dr. Wilson: The dense fibrosis which produces stenosis of the mitral valve could hardly dilate with dilatation of the heart, and stenosis would persist. Mr. Simmons?

Student Simmons: I think the onset of fibrillation caused the presystolic murmur to disappear. When the auricle fibrillates, the regular impact of the blood column on the mitral valve is lost, and hence the murmur would be lost.

Dr. Wilson: That is the best explanation.

Clinically, this is a classical case of rheumatic heart disease, based on involvement of the mitral

valve. But I don't like the way you jumped to that diagnosis on the basis of a systolic murmur recorded on the abstract. We hear systolic murmurs so often without there being a mitral valvulitis—the so-called relative or hemic murmurs. Of course if you had heard the murmur instead of reading about it on the abstract, you might have been able to differentiate the loud harsh murmur of rheumatic mitral valve disease from the soft, blowing murmur which frequently has no organic basis.

Another point of diagnostic importance which has not been stressed is the fibrillation. Auricular fibrillation in a young person means rheumatic heart disease in a large percentage of the cases.

I believe the diagnosis could have been made even without the history. We have a girl 28 years old showing well-established evidence of congestive heart failure. The heart is enlarged. The blood pressure is normal. There is no evidence of disease of the aortic valve. There is a loud systolic murmur associated with auricular fibrillation. This group of findings is adequate basis for a diagnosis of rheumatic heart disease, even without the history of migratory joint pains.

Now let us see if the x-rays confirm our clinical diagnosis.

Student Seastrunk (studying x-ray films): The heart is generally enlarged, especially on the right side. The left ventricle is also enlarged.

Dr. Wilson: Yes, but even more important is the contour of the left border of the heart. Normally, as you know, there is an inward curve on the left border, between the outline of the left ventricle and that of the aorta. Here that curve is almost obliterated, and the contour is almost a straight line, due to the bulging of the conus arteriosus and the left atrium and auricle. These are rather characteristic findings in mitral valve disease, and depend upon altered pressures in the chambers of the heart. Dr. Rudisill made a diagnosis of rheumatic heart on these x-rays, and his corresponds with the clinical impression already gained.

Dr. Lynch: I'm going to tell what we found in this case at autopsy, and then ask Mr. Seastrunk if he still thinks it was rheumatic heart disease.

(Demonstrating autopsy specimens) The heart as a whole is markedly enlarged, although the myo-

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cardium of the left ventricle is not appreciably thickened as the chamber is so dilated. The mitral valve is thick, stiffened and opaque, but the orifice is not stenotic. The chordae tendineae are ruptured and covered with small nodules. Just above the mitral valve, on the endocardial surface of the left atrium, there are many small warty vegetations. The right auricle and ventricle are greatly enlarged. The pericardium is thickened and adherent. The spleen and kidney show the scarred depressions of old infarcts. The liver show the markings commonly called "nutmeg liver," indicating chronic passive congestion. The lung is indurated and also shows evidence of chronic congestion.

Mr. Seastrunk, is that still rheumatic heart disease?

Student Seastrunk: Yes.

Dr. Lynch: What about the ruptured chordae tendineae and the infarcts?

Student Seastrunk: Those would be unusual in rheumatic heart disease, and make me think of subacute bacterial endocarditis.

Dr. Lynch: That is right. I do not recall a case of uncomplicated rheumatic heart disease in which the chordae ruptured, and embolic phenomena are unusual in rheumatic heart disease.

However, the case as a whole stacks up more like rheumatic infection than subacute bacterial endocarditis. The pericardium is that of rheumatism, and so is the myocardium. The vegetations which are seen on the endocardial surface of the atrium here are more like those of rheumatism than those of subacute bacterial endocarditis. These vegetations are merely accumulations of fibrin and a few leukocytes on the surface of the endocardium, beneath which the myocardium is fibrous and infiltrated with inflammatory cells, as in long-standing rheumatic infection. There is not the necrosis commonly seen in the vegetations of subacute bacterial endocarditis, and there is nothing to suggest bacteria, which can frequently be seen in vegetations even without special bacterial stains. No Aschoff bodies could be found in this case, but they are frequently not to be found in definite cases of rheumatic heart disease. The duration of the clinical history favors rheumatic heart disease.

I think that this case can be called one of rheumatic heart disease without question, but it is interesting in that it brings together some of the findings of both rheumatism and subacute bacterial endocarditis, and it serves to illustrate the possible confusion between the two diseases. The streptococcus viridans, which can usually be obtained in the blood of cases of subacute bacterial endocarditis, can occasionally be recovered from the blood in rheumatic fever. (There was no blood culture in this case.) There are many workers who believe that the two conditions are merely different manifestations of the same disease process. We will not be able to differentiate the two conditions absolutely until the cause of rheumatic infection is definitely determined. Certain it is that subacute bacterial endocarditis is usually implanted on a heart previously damaged by rheumatism.

While I am quite sure that Dr. Wilson appreciates the damage done to the myocardium in cases of rheumatic infection of the heart, still I want to em-

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phasize that; it seems to me that the valvular lesion has been stressed unduly, with some neglect of the myocardium which always shows extensive fibrosis and cellular infiltration.

Dr. Wilson: The reason for the emphasis on the valvular lesion is that the diagnosis of rheumatic infection usually depends upon some physical finding indicating disease of the mitral valve.

SOCIETY REPORTS

MEETING OF FEBRUARY 9th, 1937

Minutes of the Regular Meeting of the Medical Society of South Carolina, Tuesday, February 9th, 1937, at 8:30 P.M., at the Roper Hospital

The meeting was called to order by the President, Dr. W. Atmar Smith.

In addition to the members the following guests were present: Drs. Baker and Harbour, of the U. S. Navy.

The Minutes of the preceding meeting were read and confirmed.

The Board of Censors reported favorably on the application of Dr. Arthur L. Rivers, who was thereupon unanimously elected to membership.

The Secretary read the Report of the Committee on Birth Control Clinic, as follows:

In accordance with the motion adopted at the meeting of the Medical Society on January 26, 1937, directing this Committee to make a further study and investigation of birth control matters, the Committee desires to report that after careful consideration of the problem from all angles, and after due deliberation and discussion of its various aspects, the members have unanimously come to the following conclusions:

1st. There is no legal or ethical reason why birth control information may not be furnished where indicated.

2nd. A Birth Control Clinic properly conducted should serve a useful purpose in this community.

3rd. It should be under the control and management of the Medical profession.

4th. The Roper Hospital, owned and operated by the Medical Society, seems the logical and most advantageous place for its location.

5th. As a part of the Hospital, it should be managed solely by the Board of Commissioners.

6th. The Board should have full authority

to employ efficient and adequate personnel for its proper operation.

7th. The cost of operation of the Clinic should be borne by the Hospital with such funds as are now available or may be secured by the Board for that purpose. Any income derived from the Clinic should revert to the Hospital.

The Committee would therefore recommend again that "The Board of Commissioners be directed to establish and conduct a Birth-Control Clinic at Roper Hospital" as soon as practicable, along the lines set forth in the preceding paragraphs.

(Signed)

L. A. Wilson, Chairman,
Robert Wilson,
W. Atmar Smith.

Dr. Jenkins moved that the Report be adopted and that its recommendations be carried out by the Board of Commissioners.

There followed a considerable discussion by Drs. I. R. Wilson, Prioleau, Cathcart, Jenkins, J. J. Ravenel, Cain, Maguire, Mood, and Robert Wilson.

Dr. Cathcart made a motion that Dr. Jenkins' motion be laid on the table. This motion to table was lost.

After further discussion of the original motion by Drs. Lynch, Mood, and Jenkins, Dr. Prioleau offered an amendment, which was seconded by Dr. Cathcart, that the Clinic be established under the regular existing Out-Patient Department.

At this point Dr. Buist moved that the By-Laws be set aside and the discussion completed before the Scientific Program was begun.

This motion was seconded and carried.

Dr. Jenkins stated that he did not care to accept Dr. Prioleau's amendment to his motion.

Dr. Buist, Jr. offered an amendment that



COLUMBIA, AFTER THE BURNING IN 1865

the work of the Clinic be confined to the indigent poor.

Dr. Cain moved that the motion of Dr. Prioleau for an amendment be tabled. Dr. Cain's motion was seconded and passed.

The motion for the amendment offered by Dr. Buist, Jr. was then passed.

The original motion of Dr. Jenkins was then passed.

The Scientific Program, by the Staff of the Roper Hospital Cancer Clinic, was then begun, as follows:

Carcinoma of the Cervix, Dr. Hillyer Rudisill.

Treatment of Cancer of the Breast, Drs. T. Hutson Martin and Augusta Willis.

Primary Carcinoma of the Liver in Infancy and Childhood, with a Case Report, Dr. Harold Wood.

The Roper Hospital Cancer Clinic: Summary of a Year's Work, Dr. Thomas M. Peery.

A discussion by Drs. Buist, Maguire, and Cain was closed by Drs. Rudisill and Peery.

A motion by the Secretary that the date of the regular meeting of April 13th be changed to Monday, April 12th, in order that the Society might hear Dr. Morris Fishbein, was passed.

The Secretary then read a letter from Dr. Hines, calling attention to two amendments to

the Constitution of the South Carolina Medical Association which were as follows:

The following amendments to the Constitution and By-Laws of the South Carolina Medical Association will be voted on at the meeting to be held in Columbia, April 13, 14, 15, 1937.

Dr. George T. Tyler, Greenville, offered the following two resolutions:

"Inasmuch as there are a number of doctors belonging to the State Association who would gladly be of some service and who could from time to time inject new blood into the organization, but as things are, due to the fewness of elective places and the tendency mechanically to re-elect each year officers to succeed themselves, they are not called upon to serve.

"Therefore be it resolved that from now on, with the exception of the Secretary, no officer of the State Medical Association, nor any member of any committee or board, shall be eligible to serve more than two successive terms."

"Since in two successive years, our President has died while in office the President-elect has had the unexpired term to fill, as well as his own term,

"Therefore be it resolved that we modify the Constitution by electing, in addition to the



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President-Elect, a Vice-President, who shall assume the office of his superior whenever the necessity arises."

(Signed)

George T. Tyler, Jr.
Robert E. Abell
F. H. McLeod
Floyd D. Rogers.

mission at the next meeting of the State Medical Association.

This was passed by the Society.

The meeting then adjourned.

Respectfully submitted,

J. I. Waring, M.D., Secretary.

Upon motion of Dr. Lynch, seconded by Dr. Mood, the Society voted to instruct its delegation to oppose the first and favor the second of the proposed amendments.

The Secretary then discussed briefly the desirability of recommending to the State Medical Association the formation of a Medical Historical Commission.

It was moved by Dr. Rudisill, seconded by Dr. Rutledge, that the delegation be instructed to recommend the formation of such a Com-

COLUMBIA MEDICAL SOCIETY

Crystal Room, Columbia Hotel, Columbia, S. C., Monday, March 8, 1937, 8:30 P. M.

Regular Scientific Meeting:

1. Amnesias and Their Relationship to the Circulatory System—Dr. Wiley D. Forbus of Duke University.

W. J. Bristow, M.D.

President.

J. McMahan Davis, M.D.

Secretary.

"THE REVIEW OF TUMOR THERAPY"

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CONTRIBUTING EDITORS: William Harris, M.D., Mt. Sinai Hospital, New York; M. C. Seeling, M.D., and Ellis Fischel, M.D., The Barnard Free Skin and Cancer Hospital, St. Louis; Robt. J. Reeves, M.D., Duke University, Durham; G. F. Geschickter, M.D., Johns Hopkins Hospital, Baltimore; Lawrence W. Smith, M.D., Temple University, Philadelphia; R. R. Rathbone, M.D., Warwick Tumor Clinic, Washington; H. G. F. Edwards, M.D., Shreveport Charity Hospital Tumor Clinic, Shreveport; W. L. Mattick, M.D., The State Institute for the Study of Malignant Disease, Buffalo; Alexander Brunschwig, M.D., University of Chicago, Chicago; Paul Kimmelsteil, M.D., Medical College of Virginia, Richmond; Thomas Peery, M.D., Roper Hospital Tumor Clinic, Charleston; Calvin B. Stewart, M.D., Steiner Cancer Hospital, Atlanta; R. G. Giles, M.D., Scott and White Clinic, Temple; Barton R. Young, M.D., Temple University, Philadelphia; E. S. Loizeaux, M.D., and Associates, San Diego County General Hospital, San Diego.

COMPILING STAFF: Hillyer Rudisill, Jr., M.D., Compiler, Charleston; J. Hampton Hoch, D. Sc., Assistant Compiler, Charleston.

Editorial and Business Address: P. O. Box No. 508, Charleston, S. C. To be Published Monthly. Pre-publication Subscription Price, \$5.00 per year.

TO OUR PROSPECTIVE SUBSCRIBERS AND CONTRIBUTORS: We believe THE REVIEW OF TUMOR THERAPY will fill a much needed want in the rapidly widening and developing field of malignant diseases. Our intention in publishing is threefold:

(1) To present practical information that will be usable in treating patients. The field of research and experimental work is amply covered in other publications so we will minimize this phase of tumor activity except where it has implied clinical application.

(2) To present the latest, although perhaps tentative and incompletely proven, methods and procedures. This will be accomplished in a unique fashion by having regular monthly treatment notes, case reports, follow-up studies, etc., from 15 or more of the largest and most progressive tumor treatment centers in the entire country. These preliminary reports on the results of treatment will be further reported as follow-up series so the final results will be presented much before they could be recorded in any other journal. Therefore, the regular monthly contributors' reports

will be in the nature of a continuous post-graduate course of a much more extensive nature than one could hope to obtain by personally visiting the various institutions—even if time and money were unlimited.

(3) To correlate the essentially related fields of surgery, radiology, and pathology.

While the outstanding feature of THE REVIEW is to be the regular monthly contributors' reports, this will not constitute the entire journal. We expect to publish articles, reviews, and reports from the profession at large when we feel they actually give information of a practical nature about tumor patients or the tumor problem. We have already planned a series of reviews on the treatment of cancer (both surgically and radiologically) in the commoner locations; such as the cervix, breast, stomach, etc. INCIDENTALLY WE WILL BE PLEASED TO CONSIDER FOR PUBLICATION ANY ARTICLE YOU MAY CARE TO SUBMIT.

We also will have as a regular feature a comprehensive abstract section of the related literature from other journals. Finally, we expect to be in a position to give personal information to subscribers concerning the probable best method or methods of handling individual tumor cases. This will be somewhat similar to the section of Queries of the Journal of the American Medical Association except that the replies to these queries will not be published but will be answered by letter as promptly as the necessary information can be assembled.

A minor refinement that we are certain will be a tremendous convenience, is that the journal will be delivered to you preforated to fit the standard size two or three ring 8½ x 11 inch binder that can be purchased at any stationery store. This will obviate the inconvenient and costly necessity of having the journals bound.

THE REVIEW is to be published monthly with the first issue appearing between March and June, 1937. It will consist of not less than 24 (8½ x 11 inch) pages of scientific material and after the first few numbers probably 10 to 12 more pages. We do not expect to have illustrations, other than advertisements, before the first volume (12 issues) has been published.

The pre-publication subscription price is \$5.00 per volume (12 issues) or \$1.00 an issue. It is probable that the subscription price will be advanced slightly after our charter subscription list is closed. Subscriptions are now being accepted at these rates and if you wish to subscribe we will welcome a check immediately as naturally the larger the number of paid up subscribers obtained now, the more elaborate the REVIEW can be made from the beginning.

BOOK REVIEWS

SO YOU'RE GOING TO A PSYCHIATRIST, By Elizabeth I. Adamson, M.D. Cloth, Price \$2.50; Pages, 263; New York: Thomas Y. Crowell Company, 1936.

This book differs from the average volume of its kind. As a rule a work on psychiatry is so vague, so diffuse and so technical that the average person can not possibly make anything of it. Or else so very elementary and unscientific that it is merely a hodge podge of words, which convey little meaning.

Dr. Adamson seems to have steered clear of either bank of failure. For while much of the text may be over the head of the average layman, there are many parts he would find very helpful, unless already mentally ill. In that case he needs a doctor. The chapter entitled, "Letting the Child Grow Up," could be read with profit by nearly all parents and many pediatricians. The final chapter on, "Emotional Health," is a valuable guide for anyone truly desirous of living healthily in mind as well as in body.

The paper, print and binding are all worthy of the context. The author and the publishers have done an excellent job.

R. M. Pollitzer, M.D.

FEEDING OUR CHILDREN, By Frank Howard Richardson, M.D., F.A.C.P., Cloth, 12 mo., Price \$1.00. Pages, 160, New York City. Thomas Y. Crowell Company, 1937.

Once again Dr Richardson has turned out a small volume for mothers, which is not only informative, but very practical and interesting.

In the first part he gives the general principles of dietetics and nutrition, not neglecting the newer knowledge, and in the second he applies them. This latter part fully covers the exceptional conditions and the various food problems met with in childhood and infancy.

Although the book is for mothers, quite a number of doctors might read it for profit, when they want some information quickly and in compact form.

All in all, Dr. Richardson has added to his family of books a very creditable new member. March, 1937.

R. M. Pollitzer, M.D.

OPERATIVE SURGERY. By J. Shelton Horsley, M.D., LL.D., F.A.C.S., Attending Surgeon, St. Elizabeth's Hospital, Richmond, Va., and Isaac A. Bigger, M.D., Professor of Surgery, Medical College of Virginia, Surgeon-in-Chief, Medical College of Virginia Hospitals, Richmond, Va., with contributions by:

C. C. Coleman, M.D., F.A.C.S., Professor of

Neurological Surgery, Medical College of Virginia.

Austin I. Dodson, M.D., F.A.C.S., Professor of Urology, Medical College of Virginia; Urologist to St. Elizabeth's Hospital, Richmond, Va.

John S. Horsley, Jr., M.D., Assistant Professor of Surgery, Medical College of Virginia; Attending Surgeon, St. Elizabeth's Hospital, Richmond, Virginia.

Donald M. Faulkner, M.D., Associate Orthopedist, Medical College of Virginia, Richmond, Va.

Volumes I and II. Price \$15.00. Illustrated by Miss Helen Lorraine. Fourth Edition, St. Louis, The C. V. Mosby Company, 1937.

These two volumes are master pieces by two of the best known surgeons in this country and with numerous collaborators. The first volume was issued in 1921 by Dr. J. S. Horsley and then with the rapid growth of operative surgical procedures it has become necessary to issue two volumes. As is so obvious in a work of this kind the illustrations become of first importance. Every step in each operation has been clearly elucidated in the text and further clarified by the illustration.

PREOPERATIVE AND POSTOPERATIVE TREATMENT: By Robert L. Mason, A.B., M.D., F.A.C.S., Assistant in Surgery at the Massachusetts General Hospital. 495 pages with 123 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$6.00 net.

This is a book so fascinating that one is inclined to read it from cover to cover at a sitting. Practically every physician in active practice has to deal with both pre-operative and postoperative conditions and yet there is much he would like to know about handling his patients from these standpoints not covered in ordinary text books and journals. We know also that a surgical operation is by no means the whole story with many of our patients. Infinite study beforehand and meticulous care after operative procedure are all important. The book has been inspired by the practice as carried on at the Massachusetts General Hospital, Boston, one of the greatest hospitals in the world. Then there are a dozen collaborators, teachers in the great Harvard Medical School who contribute to the volume. There are many appropriate illustrations and altogether it is a delightful book and should be in the hands of every general practitioner and on the desk of every surgeon.

THE DISEASES OF INFANTS AND CHILDREN: By J. P. Crozer Griffith, M.D., Ph.D., Emeritus Professor of Pediatrics in the Univer-

sity of Pennsylvania; Consulting Physician to the Children's Hospital, Philadelphia; Consulting Physician to St. Christopher's Hospital for Children; Consulting Pediatricist to the Woman's, the Jewish, and the Misericordia Hospitals, etc.; Corresponding Member of the Societe de Pediatrie de Paris; and A. Graeme Mitchell, M.D., B. K. Rachford Professor of Pediatrics, College of Medicine, University of Cincinnati; Medical Director and Chief of Staff of the Children's Hospital of Cincinnati; Director of the Children's Hospital Research Foundation; Director of Pediatric and Contagious Services in the Cincinnati General Hospital. Second Edition, Revised and Reset. 1153 pages with 293 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$10.00 net.

This is a 1937 book. The first volume came out in 1933 and an extensive revision has been called for owing to the rapid progress of pediatrics. Both of these authors occupy important teaching positions in pediatrics and are therefore authorities to be depended upon by the practitioner. The bibliography at the close of the chapters is extensive enough for wide research on the part of those so inclined. This is one of the best books published in recent years.

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PAINFUL LESIONS OF THE EYE

By

F. RAYMOND PRICE, M.D.

Charleston, S. C.

Time passes and with its passing robs our memories of their freshness and greenness, so I will endeavor in this paper to review briefly for you a few of the important painful lesions of the eye which all of you general practitioners and specialists alike meet in your every day practice. Let us consider first the red painful eye with a history of trauma or injury. A drop of four per cent butyn or 1-2 per cent panto-caine should be instilled in the eye in order to make the proper examination as painless as possible. The eye should be examined under good illumination, through a strong lens for any evidence of a foreign body. The upper and lower lids should be everted and their under surfaces carefully examined for foreign bodies. Next a drop of two per cent fluorescin solution should be instilled into the eye and then washed out with sterile water or boric acid solution. If there is an abrasion of the cornea, a green staining area will be seen. Next the tension of the eyeball should be determined roughly by palpation with the finger tips. If the eyeball is unduly hard, a hemorrhage into the vitreous has to be considered. On the other hand, if the eye is very soft, a rupture of the sclera has probably occurred. The eye examination is not complete without a thorough ophthalmoscopic examination. With its aid traumatic cataracts, dislocated lens, vitreous hemorrhage, and tears in the retina may be detected.

Now let us direct our attention to the inflammatory painful lesions of the eye.

Iritis is an inflammation of the iris, the colored membrane, circular in form, hanging behind the cornea immediately in front of the

lens. It serves to regulate the amount of light admitted to the interior of the eye and cuts off the marginal rays which would interfere with the sharpness of the retinal image. The iris, the ciliary body, and the choroid constitute the second or vascular coat of the eye, which lies immediately beneath the sclera.

Inflammation of the iris is so frequently associated with inflammation of the ciliary body that most cases which are designated iritis are really examples of irido-cylitis.

In an acute iritis the iris pattern looks altered. It appears swollen, dull, loses its lustre, its color changes and becomes greenish, in blue or gray irides, and muddy in darker varieties. These changes are due to congestion of the iris and exudation of cells and fibrin into its substance, also to exudation into the anterior chamber. The pupil is contracted, grayish, sluggish in action, and irregular. The tension of the eyeball, though usually normal, may be increased or diminished. The anterior capsule of the lens may present evidences of exudation and also small spots of uveal pigment where posterior synechiae have been torn away. There is always marked circumcorneal injection. The subjective symptoms of all of these lesions are practically identical and consist of pain, photophobia, lacrimation, and interference with vision. The pain is often severe, referred to the eyeball itself and radiating to the forehead and temple.

TREATMENT

1. Atropine; 2. Dionine; 3. Hot fomentations; 4. Rest; 5. Protection from light; 6. Treatment of etiological factor. Atropine diminishes the congestion of the iris, puts the part at rest, dilates the pupil by paralyzing the nerve fibers innervating the sphincter pupillae and the ciliary muscle, and thus prevents adhesions and

tends to break up those which have already formed. At first it should be instilled every two hours, and later every three or four hours. The action of the atropine is often increased by the addition of cocaine. Occasionally the symptoms of atropine poisoning occur: dryness of the throat, flushing of the face, headache, vomiting, quick pulse, cutaneous eruption, excitability, and even delirium. The antidote is morphine.

Dionine five to ten per cent acts favorably upon the pain and other symptoms. Moist hot compresses for several hours each day diminish the pain and the inflammation. Codein and aspirin are also given to control the pain; iodides and mercury in specific cases. In tubercular iritis, tubercular regime plus local treatment.

GLAUCOMA

Now let us discuss a disease which is responsible for a large percentage of the blindness existing in the world today. Glaucoma is a common disease. Its accurate recognition by the general practitioner is of the greatest importance, the more so because here prompt and proper treatment can save everything, but a false diagnosis and improper treatment may destroy everything. Primary glaucoma, which has for its characteristic sign an increase of intraocular tension, sets in with varying symptoms. If the intraocular pressure rises suddenly to a considerable height, inflammatory symptoms are excited; on the contrary, these symptoms are wanting when the increase in tension develops gradually. Accordingly an inflammatory and a noninflammatory form of glaucoma are distinguished. The symptoms of inflammatory glaucoma may be described as those of first, the prodromal stage; second, the stage of active glaucoma; and third, the stage of absolute glaucoma. The prodromal stage, which in most cases precedes the inflammatory attack, is characterized by impaired vision, which is due to edema of the cornea. The patient declares that during these attacks he does not see as well, having at the same time the feeling as if there were a cloud of smoke concealing objects from him. If there is a light in the room he sees a ring about it, having the colors of the rainbow. He may complain of a feeling of dullness or slight pain in the eye and head. The

objective findings at this time are a shallow anterior chamber, the pupil is somewhat dilated and sluggish in reaction, and the tension of the globe is increased. These symptoms last for a number of hours and then disappear entirely, the eye returns to a normal condition, except that there is a diminution in the power of accommodation, so that the patient requires stronger glasses than are natural at his age. These attacks are often precipitated by mental emotions, particularly those of a depressing character, and congestion of the venous system due to enfeeblement of the heart's action. This stage lasts a number of weeks or months, sometimes several years, then the disease suddenly passes into the second stage. The stage of active glaucoma manifests itself by violent pain radiating from the eye along the first and second branches of the trigeminus. The patient complains of pain in the head, the ears, and the teeth; this pain is sometimes so severe that it occasions nausea, vomiting, and general depression. Rapid failure of sight and contraction of the visual field, especially on the nasal side, accompany the pain. Objective examination reveals edema of the lids, chemosis of the conjunctiva, and marked circumcorneal injection. The cornea is steamy, insensitive to touch. The anterior chamber is shallow, the iris is discolored, the pupil is dilated, and the tension of the eye is considerably elevated.

In absolute glaucoma the eye is completely blind. There are now no inflammatory or congestive symptoms. The cornea remains clear or slightly clouded and insensitive to touch. The pupil is widely dilated and fixed. The anterior chamber is shallow, tension is markedly increased. The fundus presents a deep excavation of the disc and atrophy of the optic nerve. Pain may disappear entirely but frequently continues.

Treatment of the acute attack consists of a hypodermic injection of morphine, the instillation of pilocarpin one to two per cent every half hour, alternating with physostigminae sulphate one-half per cent, and hot fomentations. In the chronic cases, if the tension cannot be controlled by miotics, relief has to be obtained by some form of a filtering operation; either iridectomy, trephine, Reese incision, paracentesis, or iridotaxis cyclodialysis.

If the tension of the eye is very high, miotics should be instilled every few minutes, then a paracentesis performed, followed later by a large basal iridectomy.

We have only to remember that formerly every case of glaucoma led to blindness and that now, thanks to early diagnosis and the institution of proper treatment, how many thousands there are who formerly would have been forced to sink year by year irretrievably into the night of blindness but who now are saved for vision.

Let me remind you that primary noninflammatory glaucoma is a disease of the eye with an insidious onset and that while good central vision may be preserved until late, the marked loss of peripheral field of vision may sometimes be astounding.

INTERSTITIAL KERATITIS

Now let us review briefly a rather common disease of the eye, namely interstitial or parenchymatous keratitis. It is a disease of youth, appearing as a rule between the sixth and twentieth years of life. The female sex suffers from it more frequently than the male. The ordinary cause of the disease is syphilis, and especially hereditary syphilis. A few cases may depend upon tuberculosis, while in many no cause at all that we may be sure of is discoverable to account for this disease.

Interstitial keratitis is characterized by grayish infiltrations of the middle and deep layers of the cornea accompanied by irritative symptoms of inflammation, such as pain, photophobia, and lacrimation. These irritative symptoms are sometimes very slight, sometimes violent. In general we may say that they are pronounced much more, the greater the amount of vascularization with which the keratitis is associated. This disease is almost always complicated with inflammation of the uveal tract. In the mild cases there is merely hyperemia of the iris. In severe cases there is iridocyclitis, which may lead to the formation of posterior synechiae, the formation of deposits upon the posterior surface of the cornea, and seclusion and occlusion of the pupil. The infiltrate may begin either in the center or at the margins of the cornea. If it starts in the center, we see small dim gray maculae making their appearance in this situation. The number of maculae gradually in-

creases so that they keep extending farther and farther toward the margin; but they are always massed most thickly in the center, where they frequently become confluent. Since even between the maculae the cornea is not clear, but shows a fine diffuse cloudiness, the entire cornea may in severe cases get to look uniformly gray, like ground glass. As soon as the opacity of the cornea has advanced somewhat further, vascularization begins by the penetration of vessels into the cornea from different spots upon the corneal circumference. In these cases where the disease begins at the margin of the cornea, the first thing that strikes us is that the latter has grown lusterless and clouded at some spot upon its margin. The cloudiness is deeply situated and when regarded with the naked eye looks uniformly gray, but with the magnifying glass or slit lamp can generally be resolved into separate maculae or parallel streaks. Soon similar areas of cloudiness appear at other spots of the corneal margin and then push their way forward concentrically from all sides toward the center of the cornea. Simultaneously with the appearance of the marginal opacities the corresponding portions of the limbus become injected and the vessels of the corneal margin begin to grow out. When interstitial keratitis has attained its acme, the cornea is often so opaque that we scarcely recognize the iris through it. At the same time it loses its lustre completely so that it looks as though smeared with grease. Sight is so reduced that the patient can only count fingers held very close to him, or, still worse, can only recognize the movement of the hand before his eye.

Now gradually the process of recovery begins. The inflammation begins to subside. The periphery of the cornea clears up, the blood vessels become fewer, the irritative symptoms disappear, and vision improves. Several months or even a longer period is consumed in this process, the center of the cornea being the last portion to clear. In favorable cases, after a year or more nothing but a faint central opacity and evidences of a few minute peripheral vessels can be found.

The prognosis of the disease is unfavorable as regards its duration. The longer the duration of the disease, the less favorable the out-

come. The local treatment consists in keeping the pupil well dilated with atropine, the instillation of dionine (5 to 10 per cent) to lessen the pain and promote absorption, and the wearing of dark glasses to protect the eyes from light; hot moist compresses to combat the photophobia. When the cornea begins to clear, we employ mild stimulating ointments, such as yellow oxide of mercury often combined with gentle massage, or instill 10 per cent dionine. You must be careful not to apply stimulating ointments too early. The constitutional treatment consists in giving five to ten grains of potassium iodide combined with 1/40 of a grain of corrosive sublimate T. I. D. or inunctions of mercury, syrup of iodide of iron, cod liver oil, iron and quinine, and attention to the general health.

In some cases a two per cent ointment of bisulphate of quinine used locally in the eye twice daily produces marked results.

PRESIDENT'S ADDRESS

R. C. Bruce, M.D., Greenville, S. C.

In my address before the Association last year, I tried to point out some of the social and economic problems which had or might have a direct bearing on our profession; and since these problems are still being discussed by everyone, from the school boy to the president of the United States, I can see no reason for changing the subject matter on this occasion. Today it is for the incoming president to outline the objectives for next year; so what I have to say is more a matter of personal opinion than a policy which I am asking you to sponsor. Let me say here that any arbitrary conclusion I may express, any criticism I may offer is free of personalities. Also, that it is not my intention to presume upon the unusual privilege of addressing you twice in succession.

Because of the rapid changes taking place in social viewpoints, or, rather, in the expediency of social viewpoints, I do not delude myself into thinking that anything I may say may be of permanent value. Tomorrow my opinion may be changed entirely, but at the present

moment there are a few questions which seem too important to ignore. As I see them, they are not theories of moral law nor social usage, but of the inner causes which everyone seems to be consciously avoiding.

Without being sentimental about our so-called priesthood, we can admit that our own moral law compels us to give our services to all times. Social usage demands these services, and we have no quarrel with either the one or the other. Nor is there need to become impatient and bitter with the beliefs of those who are directing the current trends of thought. For many years the profession has known that adequate medical care is an urgent state and national problem. But it is only recently that the public has become aware of it, and, like all new knowledge, this idea has taken precedence over all old facts. So now it has come about that medicine is bearing the brunt of the criticism for something it has been advocating for years. Not only that, but we ourselves are now afraid of the changes we have been advocating. And both attitudes are highly illogical.

Looking at the situation objectively, we must recognize that one phase of the immediate problem is on our side, an outgrowth of the doctor's social and economic outlook. Since modern medicine began, it has been conceded by doctors and layman that the health of the indigent is our responsibility. Social workers, hospitals, even the state itself, receive some compensation, directly or indirectly, for the care of its paupers,—but the doctor never does. Appreciation is all he may hope for. If he requested compensation or refused to treat those who could not pay, the entire medical profession would be violently censured. To put it baldly, we have brutalized the highest and noblest of duties, and more inflammatory jargon would be coined to screen the deeper needs of the indigent.

As an outgrowth of this situation comes the other and more important phase—the demands of a confused, ill organized state complacently believing that relief in illness is a specific for all problems concerning the health of its citizens. As yet, it does not admit that the need goes much deeper. There seems to be a conspiracy of silence about the fact that illness can be re-

lieved only temporarily if the patient lacks food, clothing, and shelter. Nevertheless, the state is concentrating on getting people into a scheme of medical control without an examination of the psychoneuroses arising from the more fundamental needs. Its health insurance is a misnomer. Using a medical term, we might call it one of the many germs of neurosis. We know that the sickness it causes is more serious than the illness it insures. We have charted its cycle; we have seen the slow and continuous disintegration of the insured's quality as a man; we've seen the insured cheat and lie and perjure himself. We've seen the Federal Government and the insurance companies pay over insurance to those who were not in need. We've seen those in the direst physical need refused compensation because they did not have political pull or a good lawyer. The insured loses on all sides; for doctors themselves have come to doubt the very existence of illness when the patient has health insurance to bolster up his own diagnosis of his physical condition. And none of it is economically nor socially sound. All health insurance assumes, first of all, that relief in illness is far more important than a higher standard of mental and physical health for every one.

Just what would be the meaning of an insurance that provided adequate medical relief? Doctors certainly have never found out; nor have they ever found out what adequate medical relief is. At present it does not exist, and it never can exist until we arrive at that time when every man has his share of financial security. Yet doctors are being compelled to listen to every explanation of why people are not receiving adequate medical relief, except this most obvious one. They are being dragged along by the arguments that insurance will lift the financial burden from their shoulders, will lift the burden of illness from all men. They are being told that a devotion to ideals has made them unfit for the consideration of practical affairs; and it is most important that we listen to every argument against the practice of medicine as it is, to every one for the changes for its improvement. Not only must we listen, but we must keep our heads and our tempers; for there is no one else at the present time who can, by experience and training, become the balance

wheel between the state and our clientele.

We know that thousands of people are not receiving any medical care at all; that these thousands are a health menace to the nation; that no laws providing adequate medical care can provide the necessary number of doctors to give this medical care. In the United States, laws cannot increase by one man the 150,000 doctors who are now caring for its 130,000,000 people. In such a situation, the medical profession must accept, without arrogance, that the state cannot survive without it; that it cannot survive without the state. And for it to set itself up as an autocratic minority for the purpose of blocking health legislation is both unscientific and brutal. But it can set itself up to say that neither the state nor the profession can promise more than can be accomplished.

Governments and social economists have no way of appraising the amount of care doctors can give. They go either to the one extreme or to the other. About twenty-five years ago, when the cause of pellagra was established, the state did not see to it that its people had proper food. It blamed every death, every new case of pellagra, on inadequate medical service and immediately turned its attention to those medical projects which may reach scientific maturity in the distant future.

But however sincere the motive, however varied or variously announced, the spectacular efforts to create a new order on an unstable hope, rather than evolve one from solid fact, is in flagrant disregard of all biological laws.

Evolution is an inescapable fact. Cruel, if you will; but regardless of its cruelty it persists in spite of man or men. Nothing of any permanent value has ever been done except by a process of evolution. And where the human being is concerned, it is simply a synonym for self-preservation.

So what really determines the relation between the state and organized medicine is not the wearying task of controversy about relief in illness, but a growth in understanding on both sides of what constitutes the state's part, what constitutes the doctor's part, in the prevention of disease. It is no new subject, concocted by reds, socialists, or communists. If state medicine is with us now, it has been with us since Moses. Thousands of years before modern

refrigeration was dreamed of, the Jewish law forbade the eating of milk and fish together, and for centuries thereafter it was a valid health measure. It was no red menace, seeking to destroy the democratic rights of its people, but a sound principle of preventing illness. Yet laws dogmatically set up for the purpose of giving every man, woman, and child group service cannot turn an Eskimo into a Hottentot, nor a Hottentot into an Eskimo. Because of the social implication and sentimental appeal of medicine, legislatures and whole groups of people want to believe this possible. The willingness to face the fact that it's impossible is woefully lacking. Every intelligent layman knows that an Eskimo dies if he is suddenly transferred to the tropics; that a man from the tropics cannot survive under Arctic conditions. And the scientist knows that either the one or the other can be fitted for survival, if generation after generation is gradually subjected to the change.

In the past few years we have been brought face to face with dramatic avoidances of the significance of these facts. The arguments and violent opposition to the sterilization of mental defectives in institutions was a pitiable comment on the fact that the state does place sentimentality before reality. A legislative order for the examination of a college student for lunacy because he wrote and published a class-room paper, commenting on the social conditions of one of the largest voting populations in South Carolina, forced us to consider whether this legislative weapon was simply an isolated bid for votes or whether it forecasts something of the state's future belief in its right to commit a medical crime. However, these two things are over and done with, but for how long? For so long as other such questions do not arise.

Most of our societies have discussed the possibility of such recurrences, but the societies reach only the few. However, its individual members do come in contact with the high and the low, the privileged and the under privileged. So the question resolves itself into one which the doctor may well ask himself if his patients realize just what is taking place. Has he told them that social medicine is no negative application of a cure but a positive one of foreseeing and preventing the cause? Does he, himself,

recognize that the state has a definite part in such a program? That men, generally, must undertake a broader and more comprehensive interest in fundamental causes? If our patients have no food, no clothing, no shelter, all the antitoxins, vaccinations, and treatments in the world will be of small use.

In a society evolving in the direction of real social medicine, the function of the state would gradually dwindle. A college boy's written exuberance would fall into its natural place,—no more important than rooting for the football team or doing the snake dance along the public highways. Today, on the contrary, the state seeks to extend its supervision. What is actually taking place is not a building up of a plan for what is *real* in *social medicine*, but ruthless *tearing apart of every vestige of its true meaning*. The lowest form of social medicine is one which from the beginning places revolution before evolution.

It has always been the habit of nations, groups, and individuals to think of revolution as a visible destruction. When we see that men have been killed outright, that women and children are dead from starvation, that property has been destroyed, we recognize it as a futile, brutal struggle. Yet a revolution of this kind is far less degrading than the more insidious ones, those that go on and on without overt signs of violence. While we are wondering what the disaster is going to be, the *out-of-sight destruction* has already *been done*. When it is too late, we begin the accounting; then we see that human energy has been devoured, both the collective and the individual. *Nerves* have lost their *stability*; *emotions* have become pathological; *character* has been torn apart; the *causes* themselves have been too obscure to be recognized in their entirety; *excitement*, *fanaticism*, the strain on the nerves, the *final subjection* of the *normal* to the *abnormal*,—all have led to such a *waste in human material* that it takes *years, centuries*, perhaps, for men to realize that the strength of the mind and body has been *debased*. The recuperation seems hardly worth the effort; and during the time the destruction has been going on there have been only a *few* out of the millions who have kept their balance. It may be that the *few* include a doctor, a politician, a lawyer,—but it has

never yet included *a group*. The groups have been too busy fighting for their rights.

In the revolution going on today, the medical profession may well ask itself if it is to be the one group to keep its head, its heart, its morale. If not, it can do nothing but blame itself. When the inevitable reaction sets in, its hindsight will begin to heap abuse on its lack of foresight.

Our own ideas of what medical service *should be* have not escaped the untoward effects. It has happened to a great many of us to suffer a loss less obvious than the loss of medical knowledge or scientific skill. We have become hysterical about our future. There is a natural law in this. If any group of people set themselves apart for a legalized foraging for their rights, a definite hysteria begins to spread from this point. Every other group begins to fight for its rights. What are the *rights* in *one group* become the *hardships* in another. This is why *one group*, whose individual members cannot bear to part with the least of their possessions, will *collectively* take over the possession of a factory that belongs to someone else; while another group will clamor for the protection of the militia, or another will spawn its dictators and tyrants. The law becomes general.

The medical profession belongs in this clinical picture. The collusion of groups within the group to control the volume of work by unfair methods, the underbidding in the price of work *are the streptococci and staphylococci* that have infected our own blood stream. We are *all* clamoring for our rights, fighting for them; but we *have no rights* that can be *divorced from the personal relation we have with ourselves and other groups*. Every doctor is a member of his *own group*; every doctor's patient is a member of another group; and when, or if, the doctor *forgets* this it will be as well for him and his patient, if *he stops* the practice of medicine to become a dispenser of drugs, an X-ray machine, or a man with a knife. Each one of us knows that men are not cured solely by drugs. Most laymen do not, and it has not occurred to us to publicize the fact that there are few specifics known to medicine. Yet we have done our part to protect our rights. We've publicized the mechanics of medicine. We have limited the personal responsibility by the length and breadth of a machine. We claim to be

the wizards of the modern age, and *that, exactly, is what we are*. The ceremonial of the retort, the test tube, the machinery of the laboratory, is the most thorough-going, ancient, and still operative program for *protecting the health* of the *living* against the force of evil spirits. Actually, there is no one more alive to this than the doctor himself. He knows that his economic security increases in direct proportion to his patient's belief in witchcraft. He knows that his patient is demanding the witchcraft of the machine; and if the doctor fails to provide it he is going on to the next doctor, and the next one, until he has the full use of all the machines. Therefore it is inevitable that the doctor equip himself with machines,—the only fault being that he claims, by implication at least, that *his* are private, personal ones that have some mysterious quality known only to himself and superior to those belonging to his colleagues.

It is highly dangerous to suggest that less emphasis be placed on scientific equipment. Without it, medicine cannot move by a hair's breadth. But doctor and layman have made golden calves of the microscope, the X-ray, or whatever happens to be the "wonderful new discovery" of the moment. The layman does not suspect that he and the doctor both have limited health by the very virtues that should be without limit. He is too overcome by his worship of the machine.

It is no wonder then that the layman has become confident that the human mind and body can be changed by a machine, and the state should pass laws to effect the change. He and the state can put the profession on a commodity basis. The full power of the machines is the unanswerable benefit. The benefits of the various regulations which have long been in effect are used as a basis for his beliefs. He points out the sanitary laws, the state supervision of the tubercular and insane, malaria control, child and maternal welfare; and since their benefits are so obvious, he sets no limit in the powers of state-controlled medicine. The heavens, he believes, can be reached by an elevator.

It is our fault. We have been fighting for our rights. We know that the state has not done its duty to its citizens. We know its reluctance to assume many specific and necessary

health obligations. During times past, it was necessary for us to use every available argument to convince it that the tubercular were a menace to themselves and the state at large. For many years it was necessary to persist in our efforts to get the state to understand that insanity is a disease and not a disgrace; and as such, can be treated scientifically and in groups. That is *social medicine*. Yet we know also that few other illnesses can be relegated to group treatment. On the face this appears to be a contradiction. It would be, but for the fact that human beings and their illnesses are contradictions in themselves. Neither their mental nor their physical aspects can ever be standardized or coordinated. In spite of everything, the human body cannot become a well-oiled machine for digestion, propagation, and obedience. It will always be treated for its idiosyncracies, rather than for its similarities; and to permit a final departure from individual treatment to mass therapy is nothing less than a crime.

The medical profession has prided itself on a long-established social viewpoint. In the abstract, it has despised adulteration, chicanery, quackery, and cults. In the absolute, it has probably adhered to the letter of the law but not always to the spirit. Yet no other ethical system in the world has so emphatically prescribed duties,—not rights, mind you—for the welfare of the people who do not belong to its group, whether the group be the privileged or the under-privileged. It holds each member to a specific mode of conduct. Only the other day, a Georgia doctor came afoul of the law because of his adherence to a simple professional principle. When he refused to divulge the name of a patient, he was sent to jail and fined for contempt of court.

The action of the judge in sentencing this doctor is a direct comment on what the powers of the state may become. The doctor may continue to pay his fines and protect his patient, but we have no way of being sure of that. At the present time, the Georgia laws do not recognize that any doctor has the human privilege of protecting his patient. The action of the judge was as though we, who are in an unshockable profession, had witnessed some shameful exposure of the body. There is no need for

any of us to examine the same autocratic methods used in the so-called free clinics, where no man receives treatment unless he has the money for the first examination. We know only too well what happens there. And until hospitals, courts, laws, legislatures, and congresses recognize that no patient can be properly treated unless he has a right to privacy, medicine must do something to protect the patient and itself against government, whether the government be democratic, monarchal, fascist, or communistic. Call governments what you will, believe in, or oppose any one that you will, but remember that there is no difference in the dictatorship of the one or the other, when it arbitrarily assumes the command of the profession.

But that brings us to another consideration. If government—any government—takes over the profession, that does not alter the profession's responsibility to that government. When the state claims that the individual does not count; that the greatest good for the greatest number is its only concern, we need all the honesty and humility we can muster to sustain our knowledge that the greatest number is made up of its smallest and most insignificant parts. The greatest good, after all, takes in the abundant needs of the component parts. An automobile, by-the-way, cannot run without its carburetor, however superior the engine or body may be.

Remove all catchwords, all slogans, and we will find underneath our same responsibility,—the *protection of the health of the individual*. If it takes a direct tax to provide hospitals, to reduce the cost of illness, to care for the indigent, we must do our best to get the direct tax. If it takes tax-supported laboratories to provide technical equipment for doctors generally, then we must have state laboratories at certain strategic points over the country. If the Federal Government must be the means of putting teeth into any health program, we must *have Federal power behind us*—and be done with the hypocrisy of pretending that democratic rights rest on the principle of the individual's ability to govern himself. If democracy rests on such a principle, medicine certainly does not. No man can be self-governing in so far as his health is concerned, or, rather, in so far as his disease is concerned. No doctor can be self-

governing when the health of a single individual is in his hands. But remember, that medicine, social security, education, and social uplift cannot be lumped together as one thing. Effective medicine demands and *must* have a flexible relation with government. It cannot be taped down to form No. C-5680 or any other number. It must be allowed scientific freedom to grow, to change, to evolve; and if the doctor fails to point out the difference between health programs and social upheavals, then he has failed in his avowed obligations. If he fails, *medicine*, itself, is a failure, and the state should take over the profession.

Governments have taken it over before, and what happened then was not a development of medical knowledge, but a ruthless fitting in of brutality to a technique dictated by the rulers. Yet, in spite of every thing, medicine has produced one scientist, then another and another, from Hippocrates to Banting, to drive home the fact that medical progress has been and will continue to be an *individual* and *not* a governmental accomplishment. It thrives but poorly under institutional supervision. With millions to spend, the greatest research foundations have contributed little beyond a more exact knowledge of derivatives, a greater efficiency in methods of sanitation and control of epidemics. The

discovery of the causes has been left to the individuals, those individuals who have had little more than a test tube for equipment. Take your men of science and examine their lives; but for their highly individual personalities and persistences, we might still be in the Dark Ages; and while you are examining their lives, see what has happened to them at the hands of the governments and organized groups. Take any of them, and you can count on the fingers of one hand those who have not been persecuted or neglected by the state, yet the miracle of what each one did lives on. The miracle of the full acceptance of responsibility to himself, his fellowman, his state. Not one of them was concerned solely with relief in illness. They were too consumed with the prevention of disease. They were the exponents of the highest form of social medicine, evolving plans for the physical and mental health of states, countries, and nations.

The most urgent need of organized medicine is to support all men who know that curative medicine is practiced in the *doctor's office*, and *not* in public thoroughfares. The most urgent need of the state is to learn to distinguish between medical facts and medical theories. Its greatest concern should be with the *health of its citizens*, rather than relief in illness.

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MAY, 1937

THE COLUMBIA MEETING. SOME ASSOCIATION ACTIVITIES

Under the Presidency of Dr. R. C. Bruce, the Association closed a year of marked progress with the recent meeting. Some of the major events include more satisfactory fees under the Workmen's Compensation Law. The nation wide plan for the control of Syphilis was started under way. President Bruce gave his

enthusiastic support to this matter, having attended the general conference on the subject in Washington. Then there was the problem of cooperation with the State Board of Health in the set up of the Maternity and Child Welfare provisions of the Security Act. The Association has given its unqualified support for the past two years to the Committee on Maternal Welfare, and this support will be continued. The work of this Committee has been outstanding and is so recognized throughout the country. The question of adopting some form of state wide hospital savings plan was entered upon and given careful study by the Council cooperating with the State Hospital Association. These studies will continue over into the coming year, and it is expected some disposition will be made of the proposition. A new standing committee on public relations came into being during the year, and it is believed will go far toward clarifying many of the obscure phases involved in the close relationship of the profession and the public at the present time. The Association has kept in close touch with legislative activities through its excellent committee on legislation.

During the year an intensive study by the members of the Association was given to the proposed Amendments to the Constitution and By-Laws whereby there would be a definite limitation of the terms of service of all of the officers of the Association except the Secretary. These proposed Amendments after this period of probational consideration came before the House of Delegates and were discussed forcefully and logically, after which the Amendments were defeated. The proposal for a Speaker of the House of Delegates was also lost, as was the proposal for a Parliamentarian. The only Amendment to the Constitution adopted was the provision for a Vice President. Under the head of By-Laws the House of Delegates went on record by an Amendment providing for an increase of the annual dues from five dollars to six dollars. It was clearly shown that if the Association is to function in the many directions now demanded, more money will be required. This Amendment was adopted by unanimous vote.

President Bruce recommended that the House of Delegates revert to its former prac-

tice of meeting at 10 A. M. on the day before the scientific sessions begin in order that the manifold demands on the Association may be threshed out more carefully and proper disposition be made of them at each annual session.

The report of the Secretary-Treasurer disclosed a continued growth in membership and a greater interest on the part of several smaller county societies by their reorganization. It also indicated more prompt payment of dues on the part of the members. This report showed a satisfactory year for the Journal from many standpoints, including an increase in advertising receipts and an enlargement of the reading matter in the Journal by about twenty five per cent.

All of the plans for the Columbia meeting were carried out in a remarkable way by the co-ordination of effort on the part of the officers and committees of the State Association and those of the Columbia Medical Society and the Woman's Auxiliary. The attendance of both organizations, that is the State Medical Association and the Woman's Auxiliary, reached about seven hundred, and the convention was highly successful from every standpoint. The next annual meeting will be at Myrtle Beach.

OUR NEW PRESIDENT

Dr. Julius H. Taylor was born in Columbia, S. C., August 8, 1877, the son of Benjamin Walter Taylor, M.D., of Columbia, and Marianna Heyward Taylor (Beaufort, S. C.) His preliminary education was received in the private schools in Columbia conducted by Mr. Charles H. Barnwell and later that of the Misses Reynolds. He attended the University School at Charlottesville, Virginia, from 1890-1893 and received his B. S. degree from the Citadel, The Military College of S. C., in 1896. He then spent two years at the University of South Carolina, 1896 to 1898, as the first special pre-medical student of the institution. In 1901 he graduated from the Medical Department of the University of Virginia. Following his graduation, from 1901 to 1905 he served as Intern on the Staff of the New York Orthopedic Hospital, New York Lying-in-Hospital, St. Luke's Hospital (pathological and surgical services) New York. Since January 1907 he

has been engaged in the practice of general surgery, Columbia, S. C.

He is a member of many scientific organizations, including the American Medical Association, the American College of Surgeons, the Southern Surgical Association (Resigned Dec. 1935), the Columbia Medical Society, and the South Carolina Medical Association.

Dr. Taylor has shown a continuing interest in the affairs of the State Medical Association from his earliest connection with it. He has been well known as an outstanding historian of the Association. He was a staunch supporter of the idea of erecting a memorial to Marion Sims and has contributed many papers of scientific interest at the annual meetings. He is a ripe scholar and by his genial personality will lend a peculiar charm to his duties as President of the Association.

THE PRESIDENT ELECT

The elevation of Dr. J. R. DesPortes of Fort Mill to be President Elect of the South Carolina Medical Association by unanimous vote of the House of Delegates at Columbia, April 13, 1937, comes as a well deserved honor. Dr. DesPortes was one of the oldest members in point of service on the Council and for the past three years has been Chairman of the Council. He comes from a section of the state in which the medical profession has fostered and lived up to high ideals as evidenced by the lives and accomplishments of many outstanding leaders. As a Councilor he was always faithful and a hard worker both in his District and in the broader affairs of the State Medical Association. This long service will give him a peculiar advantage when he becomes the actual head of the profession a year hence.

Dr. DesPortes was born on a farm in 1879 near Ridgeway, S. C., the son of Henry W. and Mattie LeC. DesPortes. His primary education was obtained at Mt. Hope School under the guidance of Miss Thomas. He graduated at Porter Military Academy in Charleston in 1896. He then entered the Medical College of the State of South Carolina and graduated in 1900. For two years he was in charge of Mengel's Hospital in Quintance-Roo Province, Mexico. During the World War he was stationed at the Port Terminals in Charleston.

After the Armistice he located at Fort Mill, S. C., where he has since been engaged in general practice. On April 28, 1934, he married Miss Lila Parker of Fort Mill. He is a Mason

and also a Shriner. He is a member of the Protestant Episcopal Church. At the present time he is the President of the York County Medical Society.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

THE OCCIPUT POSTERIOR, AN OBSTETRICAL PROBLEM

The incident of the occiput posterior position in vertex presentation is greater than has been taught in obstetrical text books. They are frequently not recognized, and when so may cause no difficulty in labor. At other times they may present real problems.

The non-recognition of the occiput posterior explains both the reason why their incidence is understated and why at times they give rise to serious difficulty. Recognition of the underlying cause of dystocia goes far in solving the problem of its relief.

In a recent article (*Amer. Journal Obstetrics and Gynecology*, 28:5, Nov. 1934) W. C. Danforth, skillful obstetrical diagnostician, gives statistics, based on a series of 1565 cases from his private practice. Each woman was examined by him early in labor and presentation and position determined.

Danforth found the occiput posterior in 443 cases, an incidence of 27.1 per cent in his series. The occiput was posterior and to the right in 386, and posterior and to the left in 57. The greater incidence of R. O. P. over L. O. P. is universally recognized and corresponds with the greater incidence of L. O. A. over R. O. A. Spontaneous rotation and delivery occurred in 125 cases, and spontaneous rotation and delivery by simple outlet forceps occurred in 175 cases. Thus spontaneous rotation occurred in 69 per cent of his cases. In 143 cases (31 per cent) spontaneous rotation did not occur.

In a still more recent article (*Amer. Journal Obstetrics and Gynecology*, 30:1, July, 1935) Crotty gives a study of cases of occiput posterior occurring in a series of 7,803 deliveries by the Chicago Maternity Center, which is interest-

ing because these cases are all out-patients, without the selection incident to house cases. Whereas, in his personally conducted home and hospital cases his incidence of occiput posteriors was 28 per cent of his vertex cases, the incidence in the series reported from the maternity center was only 11.5 per cent. After mentioning the reported incidence of occiput posterior in the series from six outstanding clinics, Crotty states, "A mean of all these figures gives an incidence of 20 per cent, which seems to approximate the true state of affairs about as closely as possible."

Spontaneous rotation and delivery occurred in 80.2 per cent of the cases from the maternity center. Spontaneous delivery without rotation occurred in 5.32 per cent, and operative interference was required in 14.32 per cent.

Potter (Version—1922), who tries to deliver his cases by podalic version and extraction at the end of the first stage of labor, stresses the relative frequency of occiput posteriors. Naturally he is unable to speak with regard to the frequency with which they fail to rotate.

Williams (*Obstetrics*, 6th. Edition) states:

"In 5488 cases of labor at the John Hopkins Hospital, in which the vertex presented, we observed 635 occipitoposterior presentations (11.3 per cent). The number of primary occipitoposterior positions was probably twice as great as is here indicated, but owing to the fact that many of our patients were not examined until well advanced in the second stage of labor, it happened in many cases that anterior rotation had already occurred."

There are a number of factors that operate either singly or in unison to give rise to the occiput posterior position, but these may be resolved into a single ultimate factor, namely,

failure of the head to engage in or to maintain flexion. It is associated with extension; of course, to a degree less than that of face or brow presentation.

In almost every case of occiput posterior position certain difficulties may be expected in labor and certain steps should be taken to render these less noxious. Labor may be expected to be erratic and irregular, the pains tending to develop slowly and irregularly. Onset of labor is likely to be delayed, just as it is in anterior positions when engagement does not occur in the last weeks of pregnancy. Actual suffering in the first stage of labor is greater. The cervix dilates more slowly and frequently incompletely. Thus labor tends to be decidedly longer. The membranes tend to rupture early in labor, but one should attempt to preserve them intact as long as possible, and one should try to conserve the strength of the patient as much as possible. Bladder and rectum should be kept empty. Causing the patient to lie on that side toward which the occiput points is said to aid in producing rotation.

Even though complete rotation occurs, as it will do in the majority of cases, except when the babies are relatively small, long hard labor will be required, and rotation may not occur until the advancing head begins to distend the perineum.

In those cases where complete anterior rotation does not occur four things may happen. There may be no rotation, and labor may become obstructed. Rotation posteriorly may occur, resulting in an occipitosacral position. These may deliver spontaneously or by the aid of forceps. They usually cause extensive laceration of the perineum. Rotation anteriorly may proceed to a point where the sagittal suture lies transversely, so that one has to deal with the so-called deep transverse arrest. Engagement may not be possible and the head may be arrested as a posterior at the superior strait.

The first problem is one of diagnosis. If one has recognized the condition early, he is in position to anticipate a slow erratic labor and to recognize its cause. If dystocia occurs, he is in position to proceed with judgment and a sense of assurance in the exercise of the obstetrician's art. Quoting Williams again, he says:

"To my mind the main cause of the dread in which posterior presentations are held is the fact that they frequently escape recognition, with the result that the large number which rotate anteriorly and end spontaneously are overlooked, and only those cases are recognized in which rotation either fails to occur, deep transverse arrest results, or the occiput rotates into the hollow of the sacrum. Furthermore, these conditions are not diagnosticated until operative interference becomes necessary, and even then not until repeated failure at forceps extraction leads to careful examination and to the recognition that the instrument has been applied improperly."

The second problem and one that is being actively discussed in the literature is the safest and best method of handling the situation, once the cause is determined.

Podalic version is the method of choice when the arrest is at the superior strait. Cesarean section is not indicated solely by reason of such an arrest.

After engagement has occurred, version is not a safe procedure unless one is highly skillful, and the use of forceps is safer. But here again presents a problem, for obstetrical leaders differ in their methods.

Danforth, has described a method of manual rotation of the head to an anterior position after which forceps are applied. Many others use a similar method of manual rotation.

Bill applies his solid bladed forceps to the head with the pelvic curve directed toward the anterior face, rotates the head with the forceps, removes and reapplies the forceps, a modified Scanzoni maneuver, which was first described by Smellie, and was practiced by Tarnier. This method is favored by Williams, when manual rotation fails. A modification of this method is to draw the head down on the perineum before rotating with the forceps.

Shears (Obstetrics, Normal and Operative—3rd. Edition, 1920) advised downward traction with a Tarnier forceps, giving at the same time a spiral turn to the handles.

Those who use the Kielland forceps, make a cephalic application of this instrument, which possesses little pelvic curve, and rotate and extract the head without reapplication. Their use

requires skill, for they may do great damage to the maternal soft parts.

I have had an opportunity to see a rather large group of these cases during the past few years. Many of them are seen in consultation and many others occur in my hospital services. In both of these groups, interference has been preceded by a plan of expectancy. Many times the cause of dystocia has not been recognized, and often attempts at application of forceps have been made unsuccessfully.

I have gradually come to follow a rather definite plan in handling labor where the occiput lies posterior. The duration of the first stage is of little moment as a rule. I attempt to keep the patient reasonably comfortable, using morphia and some barbituric acid salt, and I attempt to conserve her strength with readily assimilated liquids. Should the membranes rupture prematurely, as they so frequently do, this fact does not as a rule alter the plan of management.

After dilatation of the cervix is complete, I allow a little time to see if there is any tendency toward rotation and descent. The length of waiting depends upon the strength and frequency of the pains and whether or not the patients is in the hospital. I interfere much more quickly in the hospital than I do in the home, and I see little reason to allow a long continuance of more or less ineffectual effort, when interference can be carried out with reasonable safety.

When interference has been determined upon, the patient is anesthetized, preferably with ether, for uterine relaxation is necessary. The position is then carefully checked, the entire hand being carried into the vagina, after ironing it out, and the position of the occiput is determined by palpation of the posterior ear.

Then with the fingers, widely separated, the head is grasped, and an effort is made to push it

up into the pelvis, sufficiently to free it, and then working bimanually, an attempt is made to rotate the head, and at the same time the anterior shoulder. Usually one is able to bring the occiput to a transverse or more anterior position. If at the beginning of interference the head lies as an occipito-sacral, one must know from which side the occiput came. If this can not be determined, it is better to attempt to deliver as a posterior, or to perform a version, the latter, in my opinion, being decidedly hazardous to the baby, unless it is done by one with unusual skill.

After rotation, I apply forceps, first applying that blade which lies the more nearly posterior. I prefer the Kielland forceps for this, because since they possess little pelvic curve, they can be introduced in a cephalic application. They must, however, be used with great gentleness and care, particularly in the application of the anterior blade and when used to complete rotation of the head.

Simpson forceps can be used very satisfactorily, making first an oblique application, and using the technique termed by De Lee, "Key in lock," and accurately described by him in his text book.

After application of forceps, I complete anterior rotation and draw the head down into the pelvis. The anesthetic is stopped, and I wait for the resumption of pains, and with the forceps assist in the expulsion of the head.

My experience with this plan has been very satisfactory. I have been able to save mothers hours of painful exhaustion, and I have lessened the risk of cerebral injury to the babies. I have had no maternal deaths and no serious maternal injuries. I believe that I have definitely lessened my maternal morbidity and my infant mortality by routine interference which by some would be considered rather early.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"IMPORTANCE OF EARLY OPERATION IN ACUTE INTESTINAL OBSTRUCTION"

The term—acute intestinal obstruction—as it is used clinically is to a certain extent unfortunate in that it implies that the stoppage of the intestinal canal is the condition of immediate importance, whereas in many cases this is a minor consideration to circulatory changes in the walls of the intestines and metabolic disturbances caused by the loss of sodium and chloride ions. In simple high obstruction such as is caused by an enterolith there is persistent vomiting, and as a result not much distention. The ill effect is due mainly to the loss of the sodium and chloride ions and accordingly can be offset to a great extent by the administration of saline solution parenterally. Only late—if ever—would there be a circulatory disturbance of the intestinal wall. A similar obstruction low in the small intestine or in the right half of the large bowel acts somewhat differently. The vomiting is much less severe and it does not occur until later. Distention gradually takes place above the obstruction and finally involves the upper intestine. The stomach becomes full of foul brown fluid which is vomited at intervals. The disturbance of the acid-base equilibrium is less severe and does not occur early. Of greater importance is the effect of the circulatory disturbance of the intestinal wall. The circulation is interfered with both by the increase in intra-enteric pressure, and the narrowing of the caliber of the blood vessels in the distended loops. The wall becomes edematous and cyanotic—its resistance to infection is lowered. Toxemia results from absorption from it and in a short time causes death. If the process continues, peritonitis or perforation takes place. Simple obstruction in the region of the rectum does not interfere early with any vital function except that of excretion, which can be held in abeyance for some days without serious harm. Accordingly it does not constitute an acutely serious condition. In due course of

time, varying under different conditions, the intestinal tract becomes so distended that the circulation of the walls is impaired and a toxemia follows. Death results from the toxemia, or peritonitis if the process continues long enough.

The most important factor commonly present in acute intestinal obstruction is interference with the blood supply of a portion of the intestinal tract. This strangulatory condition may be only partial at first but the tendency is for it to become complete—in volvulus and some cases of hernia it is complete from the onset. Its significance is the same at whatever part of the intestinal tract it occurs. Unless relieved early, gangrene ensues—compared with this serious condition, the obstruction to the fecal stream is of minor importance.

The importance of early operation in acute intestinal obstruction has long been recognized, but in spite of this a great many cases come to operation late and accordingly the mortality remains high. In the past few years there has been advocated the treatment of the non-strangulatory cases by means of continuous stomach siphonage—the idea being that with the removal of the fluid contents from the stomach and duodenum, the lessened pressure permits regurgitation from the lower loops, and gradually the distention is relieved and the kinks straightened. In such cases this form of treatment often gives satisfactory results and averts an operation, at least for the time being. It is applicable most often in obstruction following shortly after an abdominal operation or peritonitis. The danger connected with this form of treatment is that should a strangulatory condition be present valuable time is lost. Strangulation is so commonly associated with acute intestinal obstruction that in view of its serious significance its presence should be assumed unless proven otherwise. To determine that such a condition does not exist is often difficult, and at times impossible—certainly for the average surgeon. Accordingly, in a certain percentage of cases treated by this method death

will follow from an overlooked strangulation.

In the treatment of acute intestinal obstruction the safer rule is to operate early unless there are definite contra-indications. The continuous stomach siphonage is most valuable as a preoperative and postoperative measure. It is also helpful during the operation. In some cases, especially those following shortly after laparotomy, or a recently subsiding peritonitis, it may be advisable to depend upon it to the exclusion of operation, but in so doing, it must

be borne in mind that in an occasional case strangulation will be overlooked and death will follow.

The foregoing views are held by most writers on this subject. They are particularly well expressed and treated in more detail by Boyce and McFetridge(1) in their comparative analysis of three series totaling 715 cases.

1. Boyce, F. F., M.D. and McFetridge, E. M., M.A.:—Acute Intestinal Obstruction,—The Southern Surgeon 6:109 (April) '37.

INTERNAL MEDICINE

J. H. CANNON, M. D., CHARLESTON, S. C.

ETIOLOGY AND TREATMENT OF AURICULAR FIBRILLATION AND AURICULAR FLUTTER

By I. C. Brill, M.D., Portland, Ore.

Modern concepts of Cardiovascular Disease.
Published monthly by American Heart Association, March 1937

The burden of extra work imposed by the onset of the above arrhythmias commonly results in congestive heart failure. Since fibrillation is of frequent occurrence (flutter less often), it is very important that they be recognized promptly and adequately treated.

AURICULAR FIBRILLATION

Etiology: No specific etiologic factor known. It is seen most often, however, accompanying certain clinical conditions. Evidence of rheumatic heart disease is found in from 40 to 65 per cent of cases, non valvular heart disease in 30-40 per cent (usually in older age group 6th and 7th decades, hyperthyroidism in 10-15 per cent, and other toxic states as infections, drugs, etc., in 2-5 per cent. Seldom found in syphilitic heart disease. Four to nine per cent show no evidence of any other disease. It is infrequent under 20 years of age and rare under 12 years of age. Sex appears not to play any part. Auricular fibrillation may be paroxysmal or permanent. Paroxysms may last from a few minutes to a few hours or days or last permanently. Frequent transient at-

tacks often precede the permanent for a variable period of time.

Remedies: The two chief remedies used to combat this type of arrhythmia are digitalis and quinidine.

Adequate digitalization prior to using quinidine "probably increases the chances of success and diminishes the danger of accidents. It prevents the ventricular tachycardia that sometimes occurs in quinidine therapy. Conversely, quinidine counteracts the toxic irregularities of digitalis" (Sollman).

Conditions affecting the choice of therapy.

Factors influencing choice of therapy are: etiology, variety of fibrillation, apical heart rate, and congestive failure. (Also advanced years and duration of arrhythmia, Ed.).

Etiologic considerations include presence of organic heart disease, the absence of heart disease apart from the arrhythmia and associated hyperthyroidism (the latter deserves emphasis, 1st. because it is not infrequently overlooked and 2nd. because it is amenable to cure by operative removal of the thyroid, Ed.).

Auricular Fibrillation and Organic Heart Disease.

In advanced organic Heart Disease with fibrillation it is usually best not to attempt to restore normal rhythm but to keep the apical rate reasonably slow (70-80 per min.) and reduce the pulse deficit to a minimum. Quinidine in such cases is probably not as likely to restore normal rhythm as in other types of cases; and even if successful, it is not apt to be permanent.

It is therefore very doubtful if the benefit derived from quinidine compensates for the risk incurred in using it, for it is in this type of case that the more dangerous untoward effects of quinidine (embolism, collapse, sudden death) are most apt to manifest themselves. Moreover an occasional case of organic heart disease with congestive failure seems to derive some advantage from auricular fibrillation, since the fibrillating heart may be kept at a more efficient level with digitalis than if normal rhythm were present. It has also been noted that the fibrillating heart is less subject to subacute bacterial endocarditis and sometimes lessens the severity of pain in angina pectoris.

In spite of such apparent advantages as mentioned above there are obvious disadvantages for which a continuation of the abnormal rhythm must be blamed, such as embolism. Since it is generally conceded that the more serious the organic disease, the longer its duration and the greater the age of the patient the greater the chance of embolic phenomena, it seems reasonable that if the fibrillation can be terminated shortly after its onset, the chances for thrombus formation are not so likely and seems to justify the conclusion that whenever possible, without too great risk, we should attempt to restore normal rhythm. The author believes that if the fibrillation is less than six months duration and the organic heart changes not too far advanced that the patient having first been digitalized, quinidine may be used with probable benefit and comparative safety.

He quotes Van Nuys, Kahn and Levine to the effect that even in the more advanced cases with severe decompensation which fail to respond to digitalis or other treatment, quinidine has restored normal rhythm which was followed by restoration of compensation.

In fibrillation without other evidence of heart disease quinidine is the drug of choice.

Its chances of success are enhanced by preliminary digitalization, following which a test does of quinidine of 3 grs. is given; and if symptoms of cinchonism do not appear in 6-12 hours, doses of 5 grs. may be given at 4-6 hour intervals for a week unless normal rhythm is restored when a maintenance dose is given of 3 grs. once or twice daily.

Auricular fibrillation with thyrotoxicosis may

require no special treatment, the abnormal rhythm disappearing spontaneously after operative treatment. If it persists from one to three weeks after thyroidectomy, quinidine will usually restore normal rhythm. The reappearance of fibrillation usually means that sufficient thyroid tissue was not removed at operation or there is some other cause responsible for the irregularity.

The author feels that the use of quinidine to prevent fibrillation in hyperthyroidism with normal rhythm is questionable but feels that in small doses it would not be harmful.

The paroxysmal attacks of fibrillation cease spontaneously in less than two days in 80 per cent of cases. In attacks of long duration treatment is indicated as above. Quinidine may be used prophylactically to prevent frequently recurring attacks.

Fibrillation with a slow apical rate not due to treatment usually means organic heart block, and management is directed towards the underlying heart condition. In the rare case of otherwise normal heart with slow fibrillation normal rhythm should be restored with quinidine. Fibrillation usually means organic heart disease, and we should always make every effort to determine the underlying condition. In rare cases fibrillation of itself may cause congestive failure, and in such cases the use of digitalis and quinidine by restoring normal rhythm may result in permanent benefit.

Auricular flutter occurs under the same circumstances as fibrillation but much less commonly, the ratio being about 1:20. They are closely related arrhythmias, the mechanism of production similar except that in flutter the circus movement is more regular and much slower in rate. The same remedies are employed in both. Digitalis tends to slow the rate and increase the irregularity, converting the flutter into fibrillation and upon withdrawal of digitalis normal rhythm is resumed. If it does not, then quinidine may be used.

It should be remembered that quinidine is not as safe a drug as digitalis. It has been called a two edged sword. The earliest toxic symptoms are tinnitus—less commonly nausea, vomiting, epigastric distress, and diarrhoea—more rarely there may be headache, palpitation, fear, mental depression, flushing, urticaria,

sweating, syncope and tachycardia. Ventricular premature beats may precede ventricular tachycardia and ventricular fibrillation. Sudden death other than of embolic origin is occasionally observed, probably due to ventricular

fibrillation or to respiratory paralysis. If such an emergency is anticipated, life may sometimes be saved by artificial respiration and intravenous or intracardiac administration of large doses (15 grs.) of caffeine sodium benzoate.

DERMATOLOGY AND SYPHILOLOGY

BY J. R. ALLISON, M.D., COLUMBIA, S. C.

ACUTE URTICARIA HIVES

By J. H. Crooks, M.D., Greenville, S. C.

In the 1936 Year Book of Dermatology and Syphilology (Year Book Publishers, Chicago), Wise and Sulzberger, of New York, give an outline of their own experience in the treatment of urticaria—an outline especially for the general practitioner. I give here a brief abstract of their article.

Scientific evaluation of therapeutic measures for urticaria is difficult, largely because it is impossible to foretell the course or duration of the individual untreated cases. Spontaneous cures and remissions may occur at any time, even in long standing, severe cases. The authors, for convenience, divide the treatment arbitrarily into etiologic measures, symptomatic measures, and strictly empiric procedures which may act either symptomatically or etiologically.

The authors believe that the acute attack of hives is most commonly due to allergens in the bloodstream, and in the hypersensitive skin areas produce the vascular changes which form the basis of the urticarial wheal. In other words, acute hives, in their opinions, in contrast to the chronic form, is usually the result of an urticarial type of skin allergy. The circulating allergens are undoubtedly usually of alimentary origin, but it is probable that inhalant allergens, allergens emanating from micro-organisms in foci of infection, and even contact allergens (through transepidermal penetration) may occasionally be the causal agents.

The first step in etiological treatment is to empty the gastro-intestinal tract. This should never be neglected; it may be done by the use of castor oil and perhaps better, by calomel in large doses (3-6 gr.) at night followed by a

saline cathartic in the morning. It is best, for a short time, to reduce the intake of food, to force fluids, to recommend a bland diet and to continue mild purging with daily morning doses of a saline cathartic for several days. Rest is very important, not necessarily bed rest, but avoidance of violent exercise or too heavy work. In some cases daily enemas may be employed.

The abstractor has found Guelpa's detoxication treatment very useful in relieving acute attacks of hives—that is, fruit juices, water, and milk, provided the patient is not sensitive to milk, for twenty-four hours at least and administering an ounce of Glaubers salts before breakfast.

Absorbents have proven helpful—animal charcoal in natural form, or better still, as an ingredient of modified Ravant's formula, consisting of equal parts of carbo-animalis, bis-muth subnitrate, glycerin, and simple syrups to make a paste—1 tablespoon, 1 to a tumbler of water three times daily after meals. Kaolin is perhaps more pleasant (I have used the colloidal kaolin in large doses and found it of much benefit). Kaomin (Lilly) 1 heaping teaspoonful in water before meals is not unpleasant to take. A method used much by the French, is to prevent too rapid absorption of food constituents by the administration of 1-2 to 1 teaspoonful of plain mineral oil 15 minutes before each meal and again in the middle of the meal. The authors have found this of benefit in some cases. Hydrochloric acid and pepsines have also been shown to delay the absorption of food allergens in the intestinal tract. Alcohol hastens absorption; so it seems wise to forbid the use of alcoholics.

The exact manner of the beneficial action of these remedies is not clearly understood. They

either tend to remove the urticariogenic substances or to reduce the quantity of causal noxious agents reaching the skin, and may, in at least one sense, be considered forms of etiologic therapeutics.

A second etiological approach consists of avoiding renewals of exposure to causal substances—foods and, in a few cases, drugs are the most frequent culprits in cases in which the etiology has been ascertained.

Unfortunately, skin tests have been found to be of little value in finding the causative substances. Many clinically insignificant wheal reactions may occur; or, on the other hand, and only too often, the very food or drug which has produced the hives fails to elicit a wheal when applied in a skin test. The authors believe, therefore, that skin testing should, as a rule be employed only as a check on already clinically incriminated substances, or as an ultimate investigative measure after all other methods have failed to reveal the etiology.

In search for the cause of the acute urticarial recurrences, the patient's own observations regarding causative agents are of the greatest value. (Time consumed in eliciting a good history is time well spent). When the history fails to give a clue as to the etiology, the next procedure may be either the elimination diet (Rowe, etc.), or, perhaps better, the keeping of a strict diary of all foods and drugs ingested for several weeks. Only in this way can one know everything taken by the patient. The authors give the following list as frequent causes of hives:

Foods

- Shell fish
- Fish (caviar, etc.)
- Strawberries
- Cheese
- Nuts
- Eggs
- Wheat
- Milk
- Pork
- Chocolate

Drugs

- Quinine
- Ipecac
- Salicylates
- Barbiturates

- Iodides (salt, etc.)
- Bromides
- Phenolphthalein
- Morphine and other opiates
- Antipyrine

Perhaps no food or drug can be said to be incapable of producing urticaria, on occasion. If the above substances are thoroughly investigated, many of the urticarial attacks will be explained. Strict elimination should be the first step in the investigation. To be of value the elimination must be complete. Even a trace of an allergen such as milk, eggs, wheat may confuse and invalidate the results. Strict elimination is often impossible without hospitalizing the patient.

It has been demonstrated that inhaled substances can be absorbed through the respiratory tract, then be distributed hematogenously to the skin and thus cause hives. Sulzberger and Vaughan were able to prove this manner of absorption and route of distribution experimentally. The authors list the following substances as the commonest inhalants which have caused hives:

- Feathers
- Orris powder
- Animal dander
- Pollens
- Ephedrine and other nasal sprays
- Various dusts (house dust, silk, cotton, kapok, etc.)

In the management of cases suspected of being of inhalant origin, the patient's rooms, particularly the bedroom, should be made as dust free as possible; feathers, kapok, or cotton stuffed furniture, pillows, mattresses, and cosmetics must be investigated.

While external contactants rarely cause hives, they must be borne in mind. Silks, wool, dyed materials, and cosmetic preparations should be taken from the patient's environment. Many other substances may be equally harmful. (Non-allergic cosmetics are now on the market).

In the symptomatic treatment of acute urticaria the chief problem is to relieve the frequent distressing itching. The usual antipruritic measures can be employed. A few simple remedies often sufficing.

Calamine and zinc oxide lotion or other lotions containing menthol 1-8 to 1-2 per cent,

phenol 1-8 to 2 per cent, liquor carbonis detergens 5 to 20 per cent are most useful remedies. Colorless liquids such as 50-70 per cent alcohol containing menthol, phenol and 1 to 2 per cent salicylic acid and 3-6 per cent glycerin, or 50 per cent alcohol, containing 1 per cent betanaphthol, or 1 to 2 per cent tricresol or 1 to 2 per cent phenol and 1 to 5 per cent camphor, all are beneficial in many cases. Benzocaine 5-10 per cent may be added to any of the above if the possibility of sensitization and aggravation are kept in mind. Full baths often give at least temporary relief, when the following adjuvants are added to a tubful of tepid water: epsom salts 1 to 2 cupful; "Linit" (starch) 1 lb; tar solution and emulsions (almay, etc.) 3 to 4 tablespoonfuls; pine needle oil, bran, oatmeal.

Plain unscented talcum powder, or talcum powder containing 1-2 per cent menthol or 1-2 to 2 per cent powdered camphor, applied freely within the clothing or bed sheets, is often soothing.

Adrenalin given subcutaneously affords almost immediate and complete, though temporary, relief. Injections can be repeated very frequently. In cases which present mucous membrane swellings and laryngeal and glottis edema, adrenalin is absolutely necessary. Oral

administration of drugs with adrenalin-like effect may help to tide the patient through attacks. Ephedrine and neo-synephrine are the better known of these drugs. The authors mention ephetone, and Boering's sympatol.

Sedatives such as aspirin, barbiturates, and bromides may be very helpful in severe pruritus, but sensitization to these drugs must be kept in mind at all times. Opiates are as a rule contraindicated. Calcium in large doses orally and by injection has reputed value; the gluconate, calcium thiosulphate, and calcium urea have been used. The authors claim that calcium has helped few of their patients. The abstractor believes that calcium has been of benefit in quite a few of his own cases, the thiosulphate by vein being his choice.

Auto hemotherapy is certainly worthy of trial. Ten to twenty c.c. once or twice a week in the gluteal muscle. Sodium thiosulphate injections; ichthyol orally and in enemas; alkalis and dilute hydrochloric acid by mouth when indicated; large doses of reduced iron or of ferric and ammonium citrate, and oral administration of peptone in 7 1-2 grain doses 45 minutes before meals are remedies which should be tried in persistent cases.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

OPHTHALMOLOGICAL FINDINGS IN CARDIOVASCULAR RENAL DISEASE

William Thornwall Davis, M.D., F.A.C.A.,
Washington, D. C., Surgery, Gynecology and
Obstetrics, Feb., 1937, p. 546

The manifestations of vascular disease may often be observed by the ophthalmologist before such manifestations are discernible by the internist.

The unknown toxins causing arterial hypertension attack the carotid system as the luetic toxins do the aorta. This is why the hypertensive patient is more prone to hemorrhage in his head than in other parts of his body.

In refracting hypertensive cases there is at times noted an "arteriosclerotic reaction." An

alternate brightening and dimming of the test letters—the patient sometimes is unable to distinguish between lenses of different strengths—sometimes as much as one diopter. Such patients frequently suffer from asthenopia—disabling pain and discomfort in near work. See well at times and poor at times. The vessels should be studied with the Friedenwald ophthalmoscope, using the slit light and red free lens (I have found that method of great help).

With the arteriosclerotic reaction there is a faint haze of the fundus but difficult to see to appreciate. With it are abnormalities of the arterioles. Less translucency of their walls, corkscrewing of the vessels and changes in their color. The increased tension is slight and may be confined to the diastole. This is the

hypertension stage when much can be done to prevent the progress of the condition. It is often characterized by headaches and asthenopia.

Age—usually 40-50 with a crowded life.

Later there are caliber variations in the arteries and tortuosity and arteriovenous constriction.

Hemorrhages, superficial and deep are present and exudates, both hard and cotton wool. The hemorrhages and exudates are due to ischemia produced by retinal spasm or by toxin-spasm—retinitis or renal lesion.

Dr. Davis says that (a) it is not possible to differentiate the renal from the non-renal retinal findings (with that I do not agree, post mortem checking of my observations have proved that often a differentiation can be made).

(b) that there is no distinctive retinal lesion accompanying chronic glomerular nephritis. (If one properly classifies his ophthalmoscopic pictures it is generally possible to distinguish a retinitis of chronic glomerular nephritis from the other types of retinitis);

(c) that the fundi of malignant hypertension cannot be differentiated from the fundi of glomerular nephritis. (In this he is only partly right. The differentiation can be generally made if seen early);

(d) that one rarely sees patients with well marked arteriolar disease without hypertension. (That is generally true);

(e) that there may occur a recurring but temporary retinal edema—particularly in the macula—and of serious prognostic significance.

He quotes Yater (who wrote in the *American Journal of Ophthalmology*, April, 1936, in which I read the original: "The value of ophthalmoscopic examination in the diagnosis of systemic diseases") in that the pathological changes in the vessels occurred in the fixed stage. That there was first muscular hypertrophy of the middle coat, then fibrosis of middle and external coats, and finally intimal and subintimal fibrosis and hyalinization, with serious arterial spasm occurring late and ischaemic results causing hemorrhages and white patches from stasis.

Neuroretinitis is more common in cases of disturbed renal function.

In cases that I term essential hypertension plus nephritis he claims that death occurs from a simultaneous failure of all vital organs from generalized vascular constriction before renal failure occurs. Retinitis and neuroretinitis are common in cases in which there is sudden extreme rise in the blood pressure. (That the retinopathy develops from a sudden rather than a slow increase of blood pressure has long been held as an ophthalmological fact.)

He says that neuroretinitis is a late sign and one of approaching death.

He quotes Yater and Wagener in their findings that coronary disease can be diagnosed in over 92 per cent of cases by the presence of retinal arteriolar sclerosis of essential hypertension or senile arteriosclerosis (*American Journal Medical Science*, 1929; 178:105-115). (That is a claim that for years I have put forth, after reading Wagener's article, and some of my colleagues in Charleston have come to accept that claim, but it was disputed for a long time. I have found this claim borne out by post mortem findings).

He gives valuable advice on retinitis of pregnancy and says that retinitis should not be allowed to develop in the pregnant woman. (It is hard to get that rule accepted by the obstetrician but he says that the development of retinitis means organic injury to the retinal and systemic arterioles, hence the serious prognosis. This is in accord with views that I have for several years advocated. It was put forth by Wagener that arteriosclerosis should not be allowed to develop in a pregnant woman).

For arteriosclerosis, with damaged arterio-renal system means failure of health and shortening of life.

CONCLUSIONS

An extensive literature has accumulated on the subject under consideration. Nothing new has been discussed in this present writing but an endeavor has been made to emphasize certain conclusions that are agreed upon by the majority of ophthalmologists and internists. It is the endeavor of the writer to stimulate further interest and study in the underlying and antecedent causes of arterial hypertension and arteriosclerosis.

The pathologist, the internist, the ophthalmologist, and possibly other scientists work-

ing in a group will be able to elucidate this problem in time. It is my firm belief that the ophthalmologist may be able to give data which will be of great advantage in the clarification of this problem. It is also my desire to accentuate the ability of the ophthalmologist to make the earliest diagnosis in the very beginning of hy-

pertensive arterial disease. By so doing he can be of greater aid to the patient and to his physician. It does not seem that the internist is as yet fully alive to this fact, that the ophthalmologist can discern symptoms of arterial disease in advance of the internist. The value of the ophthalmologist's ability is obvious.

SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

The basis of prognosis and treatment in hypertensive disease, by Robert Wilson, Charleston. *Internat. Clin.* 47th ser. 1: 191, March, 1937.

The most important factor in the prognosis and treatment of hypertensive disease is not the height of blood pressure, either systolic or diastolic, but the degree of arteriolar and arterial sclerosis, especially in the coronary arteries and in those of the cerebral and renal areas, and the consequent dysfunction due to oxygen and nutriment deprivation.

A high diastolic pressure, if the coronary arteries are competent, may be helpful in maintaining adequate nutrition. A small pulse pressure is not necessarily favorable; it may indicate an impaired myocardium.

Treatment directed chiefly toward the reduction of the blood pressure consequently does not rest upon a reasonable basis, and may be harmful.

Treatment of acute head injuries, by Charles O. Bates, Greenville, South. *Surg.* 5: 343, Oct. 1936.

The rapid year by year increase in serious head injury cases is considered. Their importance from a medico-legal aspect is noted. The management of shock takes precedence over all other treatment. The most efficient treatment is rest. A careful bedside observation for changes with prompt and appropriate treatment is necessary. Treatment cannot be standardized to suit all cases, but each case must be a case unto itself. Increase in intracranial pressure must be controlled with the objective of lessening the likelihood of damage to the

vital centers and consequent death, and to the cerebral hemispheres and cerebellum, thereby reducing post-traumatic sequelae and serious economic loss. Conservatism in treatment is stressed.

Successful treatment of essential thrombopenia with hemorrhage by roentgen rays, by Hillyer Rudisill, Jr., Charleston. *J.A.M.A.* 107: 2119, Dec., 1936.

Roentgen radiation constitutes an exceedingly valuable and possibly a specific therapeutic agent when applied over the spleen in primary or uncomplicated thrombopenia with hemorrhage either with or without purpuric skin manifestations.

Unusual case of osteopsathyrosis (fragilitas ossium, Lobstein's disease), by Everett B. Poole, Greenville. *Ann. Int. Med.* 10, No. 5: 683, November, 1936.

A case is presented showing three of the cardinal features of osteopsathyrosis but with no history or other evidence of bone fracture. The blue sclerae, defective ligaments and slight deafness (together with the finding of extopia lentis) can all be explained by a congenital defect in the structure of fibrous tissue forming the sclerae, ligaments and tendons.

Thyroid gland of the normal rat: size, dry matter and iodine content, by Roe E. Remington, John W. Remington and Sarah S. Welch, Charleston. *Anat. Rec.* 67, No. 3: 367, February 25, 1937.

Further investigation of the thyroid question.

Lost and found radium, by Robert B. Taft, Charleston. *Am. J. Roentgenol & Radium Therap.* 37:87, January, 1937.

Interesting experiences in finding lost radium by means of the electroscope.

Utilization of southern sanatoria for undergraduate teaching, by Wm. Atmar Smith, Charleston. *Dis. of Chest.* 3: 19, January, 1937.

The author discusses the evolution of the sanatorium and one of its most important functions, the education and training of students and nurses.

Dissecting aneurysms of the aorta, with a report of 5 cases, by Thomas M. Peery, Charleston. *Am. Heart J.* 12: 650, December, 1936.

Clinical and pathological studies. Detailed and illustrated.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT NO. 331 (32873)

Case of Dr. W. A. Smith

Student Blair (reading):

A white female, housekeeper, admitted to Pinehaven 9-16-35, died 5-28-36, age 29 years.

History: On 8-8-35 patient had worked all morning and had been quite well. She was suddenly taken with a high fever in the afternoon which confined her to bed. About 3 days later she noted that her abdomen was swollen, and it rapidly became more swollen. Abdominal fullness and discomfort prevented her from eating normally; there was occasional nausea and vomiting. The swelling of the abdomen apparently extended for a short distance up onto the thoracic wall, and she was very short of breath for several days. About a month later the swelling began to subside, and the shortness of breath and most of the abdominal discomfort gradually disappeared. No symptoms to suggest pulmonary tuberculosis. Never strong since the birth of her last child 4 years ago, when she had considerable uterine hemorrhage. Oophorectomy 3 years before admission for cysts of ovaries, both tubes ligated at that time, appendix removed. Excessive uterine bleeding continued until 6 months ago, when it ceased and she began to get stronger. Irregular menses since, last menstrual period 8-27-35. Other history irrelevant.

Examination: Temp. 99.6, pulse 96, BP 118/80. Eyes, ears, nose, and throat normal. Neck: no enlarged lymph glands or other abnormalities. Chest: diminished breath and voice sounds over right lower lobe anteriorly and posteriorly with dullness. Dullness over left lower lobe with non-persistent rales posteriorly. Cardiovascular: normal. Abdomen: Mid-line incision scar. Veins distended on surface of abdomen. Abdomen slightly distended, shifting dullness but no fluid wave. Large palpable mass in right upper quadrant, extending across midline and almost to umbilicus; hard and regular, not nodular.

Resistance and dull pain on palpation over this area. Extremities and neurological exam. normal.

Laboratory: Urine (9-25-35) completely normal. Blood (9-17-35). Hb. 80 per cent T; RBC 4,710,000; WBC 10,650; polys 69 per cent, lymphs 18 per cent, monos 11 per cent, basos 1 per cent, eosinos 1 per cent. Blood Kolmer and Kline neg. Pleural fluid blood tinged, showed "predominance of large, active, atypical cells," with some normal polys and lymphocytes. Blood sedimentation (9-17-35; 1-19-36) 15 mm and 24 mm in 1 hour. No sputum obtainable. Abdominal fluid (4-8-36): bloody; stained smear showed many large atypical cells similar to those seen in pleural fluid. X-rays of Chest (10-6-35, 1-30-36).

Course: Temp. usually varied between 97 and 99, rarely any higher, not taken for last 9 days. Pulse generally about normal, rising to 120-140 during last week of life. On 2-6-36 the veins of the abdominal and thoracic wall appeared more distended than on original examination. Hard, firm, somewhat irregular mass in right upper quadrant, moving with respiration. No evidence of free peritoneal fluid. Patient seemed to improve. On 4-6-36 signs of abdominal fluid again apparent. Abdominal paracentesis on 4-8-36 gave only 25 cc. of fluid (see lab. note). Abdominal pressure symptoms became severe requiring morphine. Paracentesis again on 4-29-36, 2 gallons of fluid similar to that previously withdrawn. Patient greatly relieved for a while, but fluid recurred rapidly, vomiting became almost constant after eating. Distention of abdominal veins more striking than previously. After 5-24-36 rapidly became weaker, semicomatose, cyanotic and died on 5-28-36.

Dr. W. A. Smith (conducting): In the week prior to the admission of this patient to Pinehaven, this x-ray film of the chest was taken. It showed, as you see, some density in the lower portion of the right lung and some cloudiness of the left base.

Mr. Wrenn, I'd like for you to discuss the diagnosis.

Student Wrenn: One of the most definite findings we have in this case is the blood-tinged fluid aspirated from the chest and the abdomen. Such bloody fluid is very apt to indicate either tuberculosis or malignancy. The patient was only 29 years old, and that is rather young for a malignant tumor, but that does not exclude the possibility of malignancy. She had no definite symptoms of pulmonary tuberculosis, and the only sign of pulmonary tuberculosis, that questionable, is the bloody pleural fluid.

If this patient had had tuberculous peritonitis, I would have expected more tenderness, and I do not believe that the abdominal swelling would have subsided, as it seems to have done in this case. She had varicose veins of the anterior abdominal wall to indicate portal obstruction, and this tended to subside as the collateral circulation improved.

I believe that the palpable abdominal mass was the liver, which was probably the seat of metastatic malignancy. I cannot spot the primary source, but I note that she had her ovaries removed some years before for cysts; these may have been papillary cystadenomata invertans, which later became implanted in the abdominal and pleural cavities.

Dr. Smith: In October, after admission to Pinehaven, this second film was taken, and shows fluid collected in the right base. But in this third film you can see that there is no pleural fluid. How do you explain the fact that the fluid tended to clear up?

Student Wrenn: Well, she was gaining in weight and her appetite was improving. It seems that the patient was improving, and that does not sound like carcinoma. Against cancer we also have the age, and the high hemoglobin. But I believe carcinoma is the most likely bet. It seems to be present in both the liver and the lungs, but the primary source is indefinite; I would guess that it was in the ovaries.

Dr. Smith: I neglected to mention that the tuberculin test was negative. Mr. Webb, will you discuss the case?

Student Webb: I agree with Mr. Wrenn that this case resolves itself into a differentiation between malignant tumor and tuberculosis. I believe that the negative tuberculin is a definite point against tuberculosis, and therefore in favor of carcinoma. The nature of the unusual cells in the pleural and abdominal fluid is also in favor of carcinoma.

The process may have been a cystadenoma of the ovary, which, after partial removal, became malignant, with metastases to the peritoneum, liver and lungs. In the last film there is some spotting of the lung fields suspicious of metastatic carcinoma, but that is indefinite.

Dr. Smith: What points are in favor of tuberculosis and what carcinoma?

Student Webb: The age, febrile course at onset, and the apparent improvement are in favor of tuberculosis, while the abdominal mass, the x-rays of the lungs, the cells in the aspirated fluids and the negative tuberculin favor malignancy. I believe that her primary tumor was probably in the ovaries.

Dr. Smith: Her oophorectomy was done three years prior to the onset of her present illness, and there was nothing to make the surgeon think that the ovarian lesion was malignant.

Mr. Traywick, do you agree with the diagnosis so far?

Student Traywick: Yes, I believe that it is a case of malignant tumor.

Dr. Smith: How do you explain the clearing of the pleural fluid?

Student Traywick: Lots of pleural effusions disappear after tapping the chest, but why they do I don't know.

The mass in the right upper quadrant sounds like the liver, and this is more apt to be malignancy than tuberculosis. The blood in the abdominal and pleural fluid is probably due to metastasis in the peritoneum and pleura.

Dr. Smith: Miss Gettys?

Miss Gettys: I don't believe that I can add much to the discussion. I believe that it is a case of carcinoma, but it seems to me that the apparent clearing of the pleural fluid is the one hitch in the diagnosis of carcinoma. The apparent improvement and gain in weight are more likely to occur in tuberculosis.

There are many things here in favor of choriocarcinoma. There was bleeding after her last pregnancy, four years before her present illness, and there has been excessive bleeding ever since. This may indicate some retained placental tissue. Four years is a long time for such a tumor to be quiescent in the parametrium, but it is not so long as to make the diagnosis impossible. Too, it is a malignant tumor that is apt to occur in young women.

I believe that malignant tumor is the most likely diagnosis.

Dr. Smith: Mr. Hewitt, how do you explain the clearing of the abdominal fluid in the early course of this illness, while the abdominal veins became larger?

Student Hewitt: I believe that this was dependent upon the establishment of a collateral circulation, so that the portal obstruction was thereby relieved.

Dr. Smith: Then why did the fluid reappear later, and recur rapidly?

Student Hewitt: I don't know why that should have occurred.

Student Wilson: Did this patient have any hemorrhoids?

Dr. Smith: That is not recorded, and I am unable to say.

Dr. Wood: Everyone leans away from tuberculosis in this case. I'd like to know why she was at Pinehaven; to me that is a point in favor of tuberculosis.

Dr. Smith: She was sent there for diagnosis.

Dr. Robert Wilson: Did it take eight months to make the diagnosis (laughter)?

Dr. Prioleau: The last two chest films show what appears to me to be definite lung metastases. As to the site of the primary malignancy I cannot say. The stomach may be suspected because of the vomiting.

Dr. Robert Wilson: I believe that the analysis of this case has been very good. The two conditions to think of were tuberculosis and malignancy. The x-ray of the chest is quite definitely that of metastatic malignancy. As to the improvement, I think that is evident at some time during the course of many cases of malignant tumor, and should not be misleading.

Dr. Lynch: This woman had a primary carcinoma of the liver, and while thinking about that I want to call your attention to something that I believe would serve to differentiate a primary from a metastatic carcinoma of the liver when portal obstruction is present. I believe that portal obstruction is more apt to occur in primary than in secondary carcinoma, because the patient will usually die of some other condition before there is opportunity for a secondary tumor of the liver to invade or obstruct the veins. Of course when abdominal fluid is due to peritoneal implants and not to portal obstruction, that is a different matter.

The liver shows a large rounded mass (demonstrating autopsy specimens) in one lobe, and there are widespread secondary lesions throughout other portions of the liver.

Associated with this there was a widespread implantation of the tumor on peritoneal surfaces, which caused the large accumulation of fluid there. To further aid in the accumulation of fluid in the abdominal cavity, possibly the main reason for its presence, there was complete obliteration of the inferior vena cava as it passed through the liver, the vena cava being invaded from the hepatic veins, which were also completely plugged with fungating tumor. The tumor extended up into the right auricle of the heart from the inferior vena cava, projecting into the chamber of the heart.

There were metastatic nodules in the lungs and pleura, giving the x-ray appearance of scattered nodules, and the pleural fluid.

I am inclined to believe that the beginning of her illness as it is recorded on the abstract, with fever, etc., has nothing to do with the tumor which was the cause of her death. I can't see how such an onset can be explained, and believe it must have been some intercurrent infection about which we can only speculate now.

As to the tumor in this instance being primary in the ovary, I can follow your reasoning all right; any case who has had an operation some time before and subsequently develops signs of malignancy, should be

suspected of having had a malignancy at the site of the previous operation. That is all right as a general rule, but in this case, carcinoma of the ovary could hardly explain metastases in the lung, which are quite rare in the usual ovarian cancer, and distinct metastases in the liver would also be unusual. The usual course there is widespread peritoneal implantation, with accumulation of abdominal fluid, and possibly adhesions and partial intestinal obstruction.

Again you have mentioned that the hemoglobin is too high for a carcinoma. As I have pointed out here many times before, there is nothing mysterious about the anemia which may develop in the course of malignant tumors: it is due to bleeding, or starvation, or infection. We cannot say that the hemoglobin is low because of the cancer itself; it is low because of one of these complications of the tumor. The presence of anemia does not argue especially for cancer, and its absence does not argue against cancer.

Miss Gettys' suggestion of choriocarcinoma is a worthy one. It is not too late after the last pregnancy for such a tumor to be manifesting itself. However, such a tumor would not be apt to metastasize to the liver and peritoneum; they usually metastasize to the lungs by blood-borne embolism.

The patient was young for cancer, but not too young. We have seen primary carcinoma of the liver even in infancy. We should never let the age of a patient persuade us that her disease is not malignant.

I see that Dr. Lassek, Professor of Anatomy, is with us. Let's get Dr. Lassek to explain to us the collateral circulation.

Dr. Lassek: There is a very important vein in the superficial abdominal wall which indirectly connects the superior and inferior venae cavae. This vein, is thoraco-epigastric, communicates between the femoral and the axillary veins. The circulation can go in either direction in this vein, and is guarded in either direction by valves, which tend to become incompetent as the veins come into use as important anastomotic channels. This vein also has a connection with the veins about the umbilicus. In obstruction to the portal vein, this communication about the umbilicus is obvious as the "caput medusae." The absence of a caput in this case would seem to indicate that the obstruction was of the inferior vena cava rather than the portal vein.

Dr. Peery: Dr. Smith has been very modest. He should be given due credit for having made a diagnosis of primary carcinoma of the liver during life.

BOOK REVIEWS

THE PRACTICE OF MEDICINE. By Jonathan Campbell Meakins, M.D., LL.D., Professor of Medicine and Director of the Department of Medicine, McGill University; Physician-in-Chief, Royal Victoria Hospital, Montreal; Formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh. Fellow of the Royal Society of Edinburgh; Fellow of the Royal Society of Canada; Fellow of the Royal College of Physicians, London; Fellow of the Royal College of Physicians, Edinburgh; Honorary Fellow of the Royal College of Surgeons, Edinburgh; Fellow of the Royal College of Physicians, Canada; Fellow of the American College of Physicians. With 505 illustrations including 35 in color. St. Louis, The C. V. Mosby Company, 1936.

It is a colossal accomplishment to write a comprehensive single volume on The Practice of Medicine in modern times. This author has succeeded remarkably well, however. There are thirteen hundred and forty three pages and particularly interesting is the fact that there are five hundred and five illustrations including thirty five in color. The illustrations are superb. The author is well known in the United States and his book should be received enthusiastically. The chapters on treatment are somewhat brief on the average and yet the author has probably presented the most successful therapeutic measures in his own experience rather than quoting extensively from others. In many of the diseases, however, the treatment and general management of the cases should be quite satisfactory to the reader.

SYNOPSIS OF ANO-RECTAL DISEASES. By Louis J. Hirschman, M.D., F.A.C.S., Ex-Vice President, A.M.A.; Ex-Chairman, Section on Gastroenterology and Proctology, A.M.A.; Ex-President American Proctologic Society; Professor of Proctology, Wayne University; Fellow (Honorary) Royal Society of Medicine; Extra-Mural Lecturer on Proctology, Post Graduate School, University of Michigan; Proctologist, Harper, Charles Goodwin Jennings, and Woman's Hospitals; Consulting Proctologist, Detroit City Receiving, Evangelical Deaconess, Wayne County Hospitals, etc. With one hundred seventy-four text illustrations and six color plates. St. Louis, The C. V. Mosby Company, 1937.

This book is the outgrowth of post graduate teaching on the part of the author to a large extent. The illustrations are far above the average in a book of this character. Both the subject matter and the illustrations have been correlated in such a manner that the practitioner may easily appropriate the various methods to his own practice.

MEDICAL UROLOGY. By Irvin S. Koll, B.S., M.D., F.A.C.S. Attending Urologist, Michael Reese Hospital. With 92 Text Illustrations and 6 Color Plates. St. Louis, The C. V. Mosby Company, 1937. Price, \$5.00.

The author states that his reason for writing this book is to fill in a need not hitherto satisfied in his opinion by the ordinary text-books on urology. The book is in the main written from his personal experience in one of the large hospitals of the country. There would seem to be a call for just such a work as this by the student and general practitioner. The author has presented in a simple way the anatomy and the pathology of his subjects. Under the head of treatment there are many practical procedures outlined. There are numerous excellent illustrations.

MATERIA MEDICA, TOXICOLOGY AND PHARMACOGNOSY. By William Mansfield, A.M., Phar.D., Dean and Professor of Materia Medica and Toxicology, Union University, Albany College of Pharmacy, Albany, N. Y. With 202 illustrations. St. Louis, The C. V. Mosby Company, 1937. Price, \$6.75.

This is a 1937 book just off the press and based on the revision of the U. S. P. XI and the N. F. VI. The volume is intended for physicians, pharmacists and students of pharmacy, medicine and nursing. There is a clear cut description of the individual drugs and there are many illustrations of them. These illustrations are unusually good and therefore the book is of great teaching value both to the student and to the practitioner. A large section of the book is devoted to toxicology and this is an important matter owing to the great increase in the list of drugs manufactured. The section on dosage is quite good also. The book is well printed and easily read.

HANDBOOK OF ORTHOPAEDIC SURGERY. By Alfred Rives Shands, Jr., B.A., M.D., Associate Professor of Surgery in Charge of Orthopaedic Surgery, Duke University School of Medicine, and Chief of the Orthopaedic Service, Duke Hospital, Durham, North Carolina; Member of the American Orthopaedic Association, The American Academy of Orthopaedic Surgeons, and The International Society of Orthopaedic Surgery, in collaboration with Richard Beverly Raney, B.A., M.D., Instructor in Orthopaedic Surgery, Duke University School of Medicine. With 169 illustrations. St. Louis, The C. V. Mosby Company, 1937. Price, \$5.00.

The authors of this book are quite well known in South Carolina and the nearness to Duke University enables South Carolina physicians to visit

the clinics there at frequent intervals and thus learn first hand of the work of the teachers of this and other subjects. In this volume the authors have the collaboration of a large number of the teachers in the great clinics of this country. An effort has been made to present a text book of immediate practical use to the student of medicine as well as the practitioner of medicine. In many respects the construction of the book varies from

the time honored text and to the searcher for recent knowledge this approach excites keen interest. The illustrations are original in character and invaluable for elucidation of the text. There are one hundred and sixty nine of them and the book has five hundred and ninety three pages. The bibliography is extensive and very valuable for further research.

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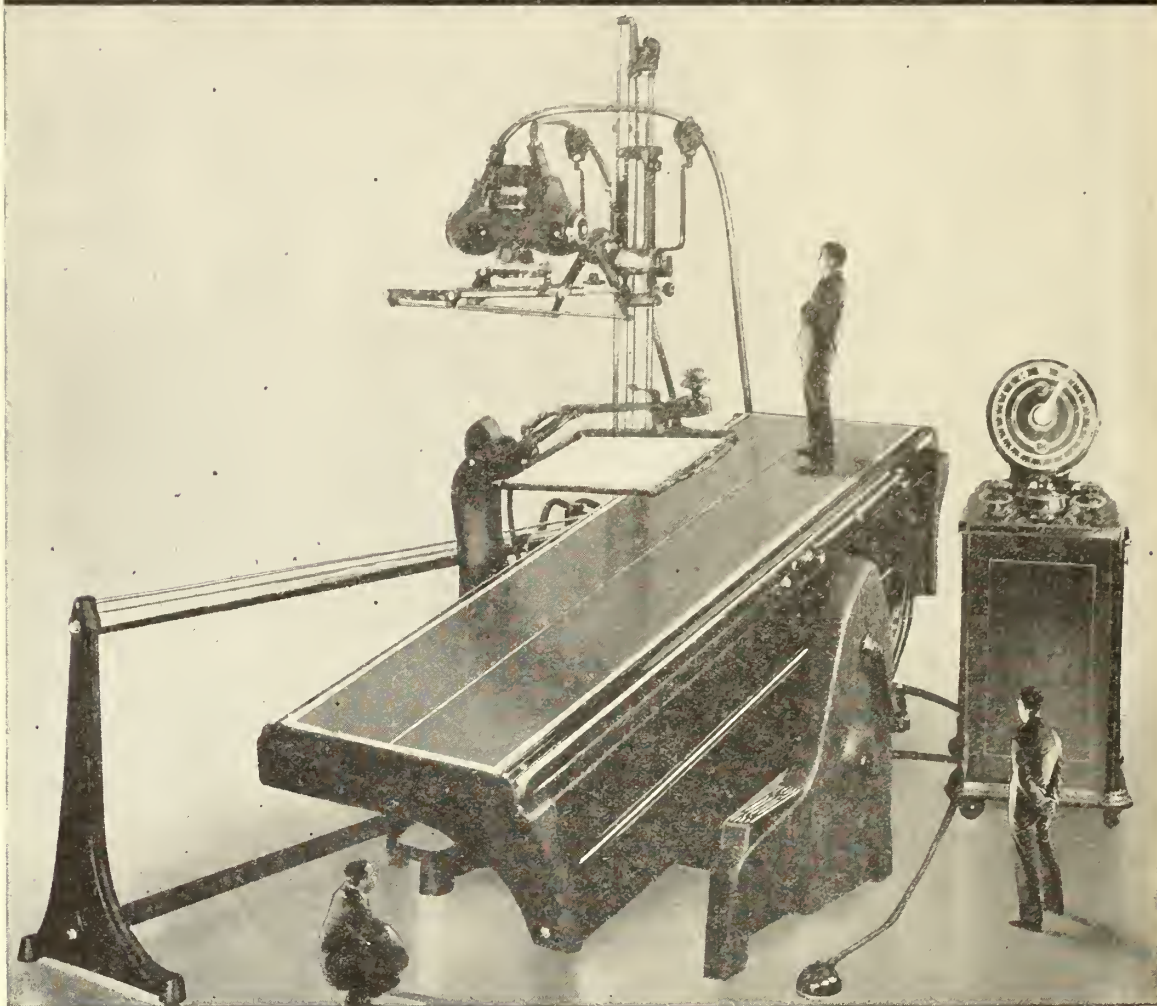
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THE JOURNAL

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DISTRIBUTION OF STATE MEDICAL COLLEGE GRADUATES IN SOUTH CAROLINA

By

JOSEPH T. MARSHALL, M.D.
Barnwell, S. C.

During the past year, the author sought some information concerning the graduates of the Medical College of the State of South Carolina who are practicing in the state. Finding very little data and nothing recent on this subject, he decided to collect as much specific information and statistics as might be available and make a report of it. It is believed that this compilation will be of interest to physicians in the state generally and to the graduates of the state medical school in particular. South Carolina has one of the oldest medical schools in the United States, it having been established in 1824 and, with the exceptions of the years of the War Between the States, when the exercises of the College were suspended, having operated up to the present time continuously (1). It is felt that a report of this nature, confining itself to South Carolina, its state medical school and its graduates who are engaged therein in the practice of medicine, will prove of considerable value.

Before presenting detailed statistics regarding the distribution in the state of physicians who graduated at the state medical school, it will be of interest to note some general facts. In South Carolina, the average population per physician has been shown (2) to be 1:1400. This is the largest average population per physician in the United States. The estimated number of physicians in the United States in proportion to population is approximately 1:800. The population of South Carolina, according to the last census (1930), was 1,738,765. It is esti-

lated that in 1936 the population had increased to approximately one and three-quarters millions. The total number of physicians in the state increased from 1242 in 1931 to 1335 in 1936, a gain of 93. Of the total number of physicians in 1936, 1129 are general practitioners and 206 are engaged in the specialties. The total number of South Carolina graduates in the state in 1936 is 649, with 537 in general practice and 112 in the specialties. It is well to note how the distribution runs according to population groups. In cities of 5000 or more, the total number of physicians is approximately 715, and in cities of less than 5000, around 620. South Carolina graduates in cities of 5000 or more number 339, and in cities of less than 5000, 310 physicians.

In the following table, physicians are listed according to the 46 counties of the state, with the population of each county given, the total number of physicians, and more detailed statistics on the South Carolina graduates practicing in each county.

A review of the above table shows that the largest population groups and the largest groups of physicians are found in Anderson, Charleston, Greenville, Florence, Richland and Spartanburg counties. The principal cities of these counties represent the leading textile and trading centers of the state. The majority of physicians in the specialties are located in these cities. Columbia, the county seat of Richland county, also the capital of the state, has the largest group of physicians, 151. Charleston, the county seat of Charleston county, also the largest city in the state, has the second largest group of physicians, 121. Charleston is the home of the Medical College of the State of South Carolina.

The total inactive list of physicians in the

Table showing distribution of physicians according to counties. Figures are based on the 1936 American Medical Directory (3). Population according to 1930 Census.

County	Popu- lation	No. Phy- sicians	S. C. Medical College Graduates			
			No.	%	Gen. Prac.	Spec.
Abbeville -----	23,323	12	4	33	4	0
Aiken -----	47,423	27	11	40	11	0
Allendale -----	13,294	7	5	71	5	0
Anderson -----	80,949	64	17	26	14	3
Bamberg -----	19,410	11	7	64	7	0
Barnwell -----	21,221	11	5	45	5	0
Beaufort -----	21,815	20	7	35	7	0
Berkeley -----	22,236	11	5	45	5	0
Calhoun -----	16,707	7	3	43	3	0
Charleston -----	101,050	140	94	67	64	30
Cherokee -----	32,201	18	7	39	7	0
Chester -----	31,803	17	9	53	9	0
Chesterfield -----	34,334	15	7	46	7	0
Clarendon -----	30,036	12	11	92	10	1
Colleton -----	25,821	13	12	92	12	0
Darlington -----	41,427	22	12	54	12	0
Dillon -----	25,733	14	6	43	6	0
Dorchester -----	18,956	14	12	86	11	1
Edgefield -----	19,326	8	3	37	3	0
Fairfield -----	23,287	12	5	42	5	0
Florence -----	61,027	56	36	64	31	5
Georgetown -----	21,738	10	5	50	4	1
Greenville -----	117,009	133	48	36	32	16
Greenwood -----	36,078	27	13	48	12	1
Hampton -----	17,243	7	4	57	4	0
Horry -----	37,376	16	12	75	12	0
Jasper -----	9,988	4	4	100	4	0
Kershaw -----	32,070	21	13	62	12	1
Lancaster -----	27,980	14	6	43	6	0
Laurens -----	42,094	27	8	29	8	0
Lee -----	24,096	12	3	25	3	0
Lexington -----	36,494	22	8	36	8	0
McCormick -----	11,471	4	0	00	0	0
Marion -----	27,221	18	11	61	10	1
Marlboro -----	31,634	12	8	66	7	1
Newberry -----	34,681	22	10	45	8	2
Oconee -----	33,368	23	7	30	7	0
Orangeburg -----	63,864	40	23	57	20	3
Pickens -----	33,709	26	8	30	8	0
Richland -----	87,667	160	80	50	45	35
Saluda -----	18,148	7	2	28	2	0
Spartanburg -----	116,323	106	44	41	36	8
Sumter -----	45,902	37	19	51	18	1
Union -----	30,920	18	8	44	8	0
Williamsburg -----	34,914	15	10	66	10	0
York -----	53,418	43	17	39	15	2
Total -----	1,738,765	1335	649	48%	537	112

state numbers 62; of this number 24 are South Carolina graduates. This leaves a total of 1273 actively practicing physicians, 625 of whom are state graduates. Hospital residents and interns in the state total 30, with 19 of these state graduates. Physicians connected with the

C.C. Corps in the state number 13, with 4 state graduates. The Medical College faculty has 26 of its graduates listed as professors or assistant professors. This number includes the Dean of the College, as well as the State Health Officer. The number of physicians who are members

of the State Medical Association is 791, of which number 441 are state graduates.

These statistics indicate the prominent place the state medical school occupies through its graduates in furnishing the state with medical services. Its graduates number approximately half of the total number of physicians. It has been estimated that the number of physicians required in proportion to population is 1:1200. Since the average population per physician in South Carolina is 1:1400, with the average in towns under 5000 placed at 1:2252, it is evident that South Carolina will continue to need and attract well-trained physicians, which the state medical school has proven through more than a century it is capable of supplying.

REFERENCES

1. Centennial Memorial of the Medical College of the State of South Carolina, Charleston, S. C., 1924.
2. Distribution of Physicians in the United States, Revised 1936, Bureau of Medical Economics, American Medical Association, Chicago.
3. American Medical Directory, 1936, 14th Edition, American Medical Association, Chicago.

MULTIPLE MYELOMA

A Case Report

By

DR. S. H. SHIPPEY,
Rock Hill, S. C.

and

DR. W. K. MCGILL,
Clover, S. C.

"Myeloma is a specific malignant tumor of the bone marrow, characterized chiefly by multiple foci of origin, a uniform and specific structure composed of plasma cells or their derivatives, Bence Jones Proteinuria, usually, and a fatal termination.

Possibly the first case was described about 1845 by Bence Jones—a case of softening of the ribs and vertebrae. Up to 1928 only 425 cases had been reported in Medical Literature. Von Rustizky, in 1875, first applied the term Myeloma to this symptom complex by which it has been known ever after.

Its incidence in adult life is 60 per cent be-

tween ages 40 and 60 years and 26 per cent after 60 years. 76 per cent of all cases occur in males. The youngest case I could find reported was that of a 3 1-2 year old child by Dr. E. J. Berkheiser of Rush Medical College, March 1920. This child had started limping at age 2 1-2 years and developed a Pathologic fracture of upper femur when the diagnosis was made. It later developed a double exophthalmus which is a complication of the affected meninges. The oldest case reported was that of a woman 74 years of age, reported by Dr. Albert Nicholls of Halifax, N. S.

The most usual symptoms are pain, profound weakness and a moderate loss of weight. The pain in 70 per cent of cases is lumbar or sacral, 20 per cent of the chest, 5 per cent legs, arms or shoulders, 5 per cent other parts of the body. These attacks of pain in some cases are more or less constant, in others there are periods of remission and exacerbation. The pain is worse from movements of the body, as getting in and out of bed and pathological fractures are produced easily, accompanied with severe pain and often this is what first brings patients in. The weakness grows progressively worse and toward end of the disease patients are unable to walk unassisted.

The blood picture is not markedly changed. Hemoglobin ranges from 50 to 80 per cent R.B.C.—3 to 4 million and whites 7 to 15 thousand.

Histologically these tumors are classified as Plasmacytomas, Erythroblastomas, Myelocytomas (adult and embryonal) and Lymphocytomas. The bones most often attacked are the cancellous bones i.e., the vertebrae, sternum, ribs, clavicles, ilium, skull, scapula and the ends of the long bones. As the tumor increases in size the bones are left honey combed with the linings of bones, the cortex not affected. With this destruction there is no tendency to new bone formation. However, under radium and deep X-ray and splints these fractures unite firmly. The macroscopic appearance is that of a soft gelatinous vascular growth of reddish or gray appearance, containing scattered areas of hemorrhages. They rarely metastasize to any of the viscerae.

They must be differentiated from chloromas, cysts, enchondromas, osteomalacia, myeloid sarcomas, hyperthyroidism, xanthomatosis.

CASE REPORT

March 12, 1936

Mrs. R. R. M. Age 57 years. Wt. 133 lbs. Married, 2 c. L & W. Only two pregnancies. Was a R. N., until 23 years of age, since domestic.

Complaint: In October 1935, patient noticed a painful and sore spot under right scapula that lasted about two weeks and disappeared. Next on Christmas day she had a severe pain to appear in abdomen that radiated toward the pelvis. This pain was severe for about 12 hours and left her sore about two days in abdomen. In January the pain recurred in lumbar area and was made worse by stooping. Patient was able to carry on her usual household duties without taking much in the way of analgesics and no opiates. But she said it was just misery for her to go, almost every move pained. These pains finally became general over chest and thoracic spine and grew worse.

P. H. Negative.

P. E. The patient was that of a tired worn out sick patient. The skin was pale to yellowish—mucous membranes pale. No petechia or erythema. Her gait was very noticeable—very guarded in every move such as getting up from sitting position in chair and getting in and out of car. Her speech was normal and answered questions intelligently.

Head and Neck: Negative except the pale mucous membranes. There were several sockets partially healed from recently extracted teeth to cure her neuritis.

Chest: There was a noticeable fixedness about the respiratory movements with the ant. post diameter of chest increased. This also

gave a full appearance to epigastrium. There was a small nodule in left breast that did not seem fixed to any of surrounding tissues and no enlarged axillary lymph nodes. On percussion and pressure painful areas were found over sternum and under left scapula.

Percussion and auscultation were otherwise negative.

Abdomen: There was a distended look to upper abdomen and because of muscle spasms you could not palpate it readily. As best we could palpate and percuss no masses were made out.

Pelvis: Negative.

Extremities:—Reflex negative.

Blood-Wass.: Negative. Hb. 60 per cent —B.P. 130/60.

RBC, 3,750,000; WBC, 5,000; P.M.N. 74 per cent; S.L., 12 per cent; L., 11 per cent; M., 3 per cent.

Urine: sp. gr., 1018 to 1028; alb. and sugar, negative in March Examination. May at Duke Medical School, Bence-Jones, albuminuria, alb. 2 plus.

X-ray films: Showed miliary areas of destruction of skull, ribs, lumbar spine, pelvis and upper ends of femur.

TREATMENT

Because of the extensive areas of the bones involved and its wide distribution the relatives were advised that the usual beneficial treatment, radium and X-ray, were futile—analgesics and supportive treatments were used. Patient died August 25, 1936. Specimens of bone affected were sent to Dr. Lynch for report. These confirmed Myeloma as also the autopsy done by Dr. S. H. Shippey of Rock Hill.

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JUNE, 1937

MEETING OF SOUTH CAROLINA PUBLIC HEALTH ASSOCIATION

One of the most outstanding meetings of the year was that of the S. C. Public Health Association at Myrtle Beach, May 24-26, under the Presidency of Dr. Ben Wyman, of Columbia, Director of Rural Sanitation of the State Board of Health. The officers and the program com-

mittee had provided one of the best programs on public health ever put on in the State. Many of the speakers were of national and some of international reputation. The program was admirably balanced. The subjects discussed covered most of the acute problems faced by the people of South Carolina from a health standpoint. The attendance approximated four hundred. The social features were highly enjoyable. The place of meeting is one of the most famous resorts in the South Atlantic States. The Assembly Hall was well nigh perfect from every standpoint, being modern, well equipped, and conducive to the comfort of the large audiences. The South Carolina Public Health Association brings together most of the personnel of the State Board of Health, including all of the County Health Units. The South Carolina Medical Association is profoundly interested in the continued success of the organization.

THE MEDICAL COLLEGE AND ITS PROSPECTS

Elsewhere in this issue appears a compilation of data in regard to the number of graduates of the Medical College of the State of South Carolina practising medicine in this State and the Counties in which they are located. This investigation discloses that our State Medical School continues to hold an important position in the education of the young men and women of South Carolina and that the majority of the graduates continue to live in South Carolina. The school is well over one hundred years old now, and of course many of the graduates have gone to the far flung corners of the earth and often have reflected great honor on the College by their fame. The Legislature at the last session has recognized in a very substantial way the great work of the College by increasing the appropriation considerably over any previous year. This appropriation will now enable the College to function more effectively along the lines expected of a class A institution. The Dean reported to the Alumni Association at its recent meeting in Columbia that the increase in funds would provide the College with much needed enlargement of the teaching staff and provide for continued contemplated improvements in

general. This is as it should be, owing to the great service to the people of the State the College is called upon to render.

THE ASSOCIATION CONTINUES TO GROW

According to the report of the Secretary, the paid up membership of the Association is more satisfactory than any of the recent years. At this moment there are more paid up members for 1937 than at the close of the year 1936. With seven months more before the fiscal year ends there should be a very marked further increase of paid up members. For one thing, this means that there is a greater interest in organized medicine in South Carolina evident, and why not? Membership now in organized medicine carries with it more potential possibilities than at any time in the history of the world. First of all, of course, is the close contact one may have with the rapid advances in scientific medicine. For a very small membership fee the door opens immediately into untold resources, as presented by the great American Medical Association and its constituent units. It is a wonderful concept that the portal of entry may be one of the smallest county medical societies just as well as it may be one of the largest county units. This great democratic organization is performing an extraordinary service to the medical man and to his patients. One may travel in any direction in South Carolina, as has been disclosed by the reports of the President of the Association, the Chairman of the Council, the individual mem-

bers of the Council, and other officers, and find inspiring scientific programs being carried on every month in the year, and sometimes oftener.

Membership in organized medicine is destined to play a still greater part in the economic life of the physician. This is inherent with the age in which we are living. Time was when the physician as an individualist was a commanding figure in every community. Such an age served its purpose but is rapidly passing into another age of cooperative and community interests in medicine. By this latter development we are assuming a closer and more powerful relationship with civic and other governmental agencies. Such an attitude is all important and to a large extent is the crux of the continuation of the profession on the high social, scientific, and economic plane that it merits. These are some of the broad general principles underlying membership in the County, State, and National organizations. It would be beyond the scope of this editorial to remind our readers of the vast number of other benefits now enjoyed and on the way. Suffice it to assert that in no other field of activity, we believe, is it possible for such a small fee to receive such a tremendous return as for the fee one pays to become a member of organized medicine in the United States. We bow in profound respect to the founders of this great movement whose names are so well known in this country and throughout the world, for their vision, for their statesmanship, and for their unselfish devotion to the ideals of one of the noblest of all professions. 1937 MARCHES ON!

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

MEDICAL OPHTHALMOLOGY

1. Dr. William T. Davis of Washington, D. C., wrote in the *Surgery, Gynecology and Obstetrics*, Feb. 15, 1937, an interesting article on Ophthalmological findings in Cardiovascular Renal Disease.

2. Drs. Grady E. Clay and J. Mason Baird, of Atlanta, Ga., sent me a reprint of an article published in the *Southern Medical Journal*, Feb., 1937, on Lesions of the Fundus Oculi of Special Diagnostic Interest.

These articles are both of such interest as to be called to the attention of our friends in General and Special Practice; or as they say "the ophthalmological findings are of particular value to the internist, the neurologist, the neurosurgeon(1) and the obstetrician." (2)

Realizing that in the prevention of vascular changes lies our best success in treatment they emphasize that it is by the ophthalmoscope that the earliest diagnosis of hypertension can be made, the prehypertensive stage (Davis) in which says Davis, "If the cause is carefully sought for and can be removed, the retinal signs will disappear together with the headache and asthenopia," and the generalized vascular changes will not become permanent. "An examination by the internist reveals (at this early stage) nothing abnormal and he pronounces them fit."

"The unknown toxins causing arterial hypertension probably attack by predilection the carotid system as the luetic toxions do the aorta. This is why the hyperpietic patient is more prone to hemorrhage in his head than in other parts of his body." (1)

"More than one sitting is frequently necessary." Too often cases are referred to me for an opinion on only one examination, which Davis says is frequently not sufficient. The value of the red free light is emphasized and I also have found the advantages to be derived from the Friedenwald ophthalmoscope; with it one can more accurately observe the retina and its vessels with the red free or the amber light than by the usual type of ophthalmoscope.

"This disease (essential hypertension) is usually recognized in the early forties, though it may be seen in young adults and extreme old age." (2) I have seen the malignant form in a girl of 18.

The earliest changes are an angiospasm which can be recognized by "a very careful examination of the whole vascular tree of the retina" and the early symptoms are "headache" (2), "and asthenopia" (1), so that the responsibility for the diagnosis is upon the ophthalmologist. This we realize.

Davis calls the "arteriosclerotic reaction" an early sign of arteriosclerosis. He says that in refracting such a patient "the patient is unable to distinguish between lenses of different strengths, sometimes as much as one diopter," that they are "unable to use their eyes for near work for any length of time without pain and discomfort," and that there is often "a faint haze in the retina." It is this type of retina that the Friedenwald ophthalmoscope enables one to see clearly.

The ophthalmoscopic changes in the early stages are: narrowing of the arteries (2), (increase in the light reflex, arterio-venous compression and a little later when fibrosis commences) "The translucency of their walls is less, there is corkscrewing of the vessels about the macula and changes in the color of the vessels."

Later more definite arteriosclerotic changes occur as also does arteriosclerotic retinitis.

Friedenwald says the "branches of the central artery of the retina of the first and second order may be designated as arteries, those smaller as arterioles."

Clay and Baird describe essential hypertension, benign and malignant; and differentiate the essential type from the renal type more clearly than does Davis; who says, and quotes authorities to sustain him, "that it is not possible to tell from the retinal findings whether the case is one of renal or non-renal disease"—and that "the fundi in hypertension, or malignant hypertension can not be differentiated from the fundi in glomerular nephritis." He is right

but only partly so and at times for they can often be differentiated. The angiospastic type of which Clay and Baird write are more often renal or have a renal complication than the type that Davis says Fishberg designates as arteriosclerotic antipathy (this type is described by Fishberg in Hypertension and Nephritis, page 241).

"Yater observes that in the 'fluctuating' stage of hypertension there are rarely observable vascular changes. In the 'fixed' stage, degenerative changes occur in the arterioles in all parts of the body more or less. At first the only change is a hypertrophy of the muscular coat of the arterioles, the kind of change which occurs in any muscular tissue subjected to excessive activity. Later there is fibrosis of the arteriola adventitia and media; and last, there may be intimal or subintimal fibrosis and hyalinization. With these changes the arteriolar lumina become progressively smaller. From time to time excessive spasm of the arterioles may be noted on ophthalmoscopic examination before and during the fixed stage."

In the discussion of retinitis of pregnancy, which Clay and Baird discuss under angiospasm, and Davis discusses under retinitis of pregnancy; they all bring out valuable facts.

"Organic changes in the arterioles are said to occur after ten days; so to allow angiospasm to continue for any length of time is to allow permanent damage to be done. Since angiospasm will clear up as soon as the toxemia has been eliminated, when it occurs in the toxemia of pregnancy, the uterus should be emptied." (2)

"The development of retinitis usually means organic injury to the retinal and systemic arterioles, hence the serious prognosis. The development of retinitis in any toxemia of pregnancy

is due to injury to the vascular system. Retinitis should not be allowed to develop in the pregnant woman." (1)

Clay and Baird describe the ophthalmoscopic findings of subarachnoid hemorrhages as the nerve head rapidly developing a most marked edema. "This swelling can be seen to increase every few hours, and the striking feature is the development of large hemorrhages over the nerve head extending into the retina. The choking of the disc is produced by increased intracranial pressure and blood in the optic nerve sheath obstructing the flow of blood and lymph. "The fundus lesion is always bilateral and most of these patients die.

The ophthalmoscopic appearance of optico-vaginal hemorrhage is very much like that of subarachnoid hemorrhages but the "fundus picture of optico-vaginal hemorrhage is always unilateral."

Clay and Baird also describe a type of optic neuritis "in children from 10 to 18 years of age principally," in which "there is always a certain degree of consecutive optic atrophy and in many cases blindness."

A careful study of these cases has not revealed the etiological factor but on account of its close resemblance to "some cases of encephalitis, but more especially in neuromyelitis optica. We therefore believe it is an inflammatory process produced by a virus infection which has a specific affinity for the optic nerve."

These three doctors have scarcely scratched the surface of medical ophthalmology. The value of this abstract lies in bringing to the attention of some doctors the fact that they all have available the valuable help that can be given them by the ophthalmologist.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

“PLICATION OF SMALL INTESTINE AS PROPHYLAXIS AGAINST ADHESIONS”

The discouraging part about operating for the relief of symptoms due to adhesions is the likelihood that new adhesions will form. Especially is this the case where the operative procedure leaves large areas of intestine devoid of peritoneum. Conditions do not permit of approximating the serosal edges, unless the area is very small. Covering with omentum is of limited value; also adhesions to the omentum not infrequently give trouble. Substances such as amniotic fluid and digestive ferments placed within the abdominal cavity for the prevention of adhesions have not met with general success; in some cases they seem to be harmful. As a result of having very little control over the matter, we can do little but hope that the newly formed adhesions will not be as troublesome as the old.

That which appears to be a partial solution to this vexing problem is given by Dr. Thomas B.

Noble of Indianapolis. (Am. J. Surg. 35:41 Jan. '37). He advocates plicating the loops of small intestine so that the denuded areas are covered. The loop containing the damaged area is folded so that the denuded surface is covered by the peritoneum of the adjacent wing of the fold. The suture is started at the root of the mesentery and carried on the wall of the bowel so that the denuded area is covered to best advantage. Other raw areas are treated likewise. This procedure does not seem to interfere with peristalsis. In the hands of the author it has given most satisfactory results.

Plicating the small intestine in such a manner is a positive application of the principle which we have long recognized in a negative way. Not infrequently at such operations we purposely do not separate adherent loops, where there is no obstruction, fearing that we will do more damage by exposing a raw surface with resultant adhesion formation. To this extent it is not untried. Its value would seem sufficiently proven to warrant a more extensive positive application.

ALUMNI MEETING OF THE MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

The annual meeting of the Alumni Association of the Medical College was held in the dining room of the Jefferson Hotel, Columbia, April 14, 1937, Dr. D. L. Smith of Spartanburg presiding. Dr. Smith called on Dr. Robert Wilson, Dean of the Medical College, who made some brief remarks concerning the progress of the Medical School. The minutes of the last meeting were read and approved and the treasurer's report was received as information. Officers for the year were elected as follows:

President, Dr. Wm. Weston, Columbia.

Vice-President, Dr. W. E. Simpson, Rock Hill.

Directors held over to serve until 1938.

2nd District, Dr. R. H. Timmerman, Batesberg.

4th District, Dr. E. A. Hines, Seneca.

6th District, Dr. P. D. Hay, Florence.

8th District, Dr. L. P. Thackston, Orangeberg.

The following directors were elected to serve for two years, until 1939:

1st District, Dr. J. I. Waring, Charleston.

3rd District, Dr. J. B. Latimer, Anderson.

5th District, Dr. E. E. Herlong, Rock Hill.

7th District, Dr. C. B. Epps, Sumter.

The meeting then adjourned

Immediately following this meeting there was a meeting of the Directors at which it was decided that the office of Secretary-Treasurer be divided into two offices, whereupon, Dr. A. T. Moore of Columbia was elected Secretary and Dr. F. L. Parker of Charleston was elected Treasurer. A motion was passed that the Secretary write to the legislature (or Dr. Epling) endorsing the proposed bill to make Doctors Tripp and Woodruff honorary members of the Board of Trustees of the Medical College.

J. I. Waring, Acting Secretary.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

ADVISORY COUNCIL

Dr. E. A. Hines, Chairman	Seneca, S. C.
Dr. J. Fred Crow	Spartanburg, S. C.
Dr. F. M. Routh	Columbia, S. C.
Dr. D. L. Smith, Jr.	Spartanburg, S. C.
Dr. T. R. W. Wilson	Greenville, S. C.

OFFICERS

President, Mrs. Jesse Willson	Spartanburg, S. C.
President Elect, Mrs. C. C. Ariail	Greenville, S. C.
First Vice President, Mrs. P. M. Temples	Spartanburg, S. C.
Second Vice President, Mrs. W. B. Furman	Easley, S. C.
Recording Secretary, Mrs. T. R. W. Wilson	Greenville, S. C.
Corr. Secretary, Mrs. R. M. Pollitzer	Greenville, S. C.
Treasurer, Mrs. Dennis Hill, Pacolet Mills	Spartanburg, S. C.
Publicity Director, Mrs. E. C. Ridgell	Batesburg, S. C.

COUNCILLORS

Mrs. J. C. Brown	Walterboro, S. C.
Mrs. Price Timmerman	Batesburg, S. C.
Mrs. W. L. Pressley	Due West, S. C.
Mrs. Henry Heinitsh	Spartanburg, S. C.
Mrs. W. R. Blackmon	Rock Hill, S. C.
Mrs. Richard Baker	Sumter, S. C.

STATE CHAIRMEN

Student Loan Fund, Mrs. L. O. Mauldin	Greenville, S. C.
Student Loan Fund, Co-Chairman, Mrs. C. P. Corn	Greenville, S. C.
Student Loan Fund, Treas., Mrs. Warren White	Greenville, S. C.
Jane Todd Crawford Mem., Mrs. Riddick Ackerman	Walterboro, S. C.
Public Relations, Mrs. John Fleming	Spartanburg, S. C.
Publicity, Mrs. Jenkins Mikell	Columbia, S. C.
Hygeia, Mrs. W. C. Abel	Columbia, S. C.
Historical, Mrs. H. M. Stuckey	Sumter, S. C.

To the Medical Auxiliaries of South Carolina:

I am your new Publicity Secretary. At the beginning of the new year I want to get in touch with the publicity chairman of each local auxiliary. Don't wait for me to write to you for I don't know your name. Tell me about anything your auxiliary does; your regular meeting, a special meeting, a picnic, reception or any other activity. As your State Secretary I am just as anxious to get news from your auxiliary as I am to get something from Ridge Auxiliary (the one of which I'm a member). You are fully aware that I can not do this unless you write to me.

Sincerely,

Mrs. E. C. Ridgell,
Batesburg, S. C.

RIDGE MEDICAL AUXILIARY

The Ridge Medical Auxiliary held its regular meeting Monday night, April 19, at the home of Mrs. E. C. Ridgell in Batesburg. Mrs. W. P. Timmerman presided. Reports of the State Medical Auxiliary were given by Mrs. Timmerman and Mrs. Ridgell. The Auxiliary is quite pleased over being the winner of the

Historical trophy. Officers for the incoming year were elected. Miss Anna Waters read a paper on Dr. Sabin; a piano solo was rendered by Fredricka Huggins and readings were given by Joan Johnson and Patricia Ann Brabham. The hostess served tea and sandwiches and a social hour was enjoyed.

Mrs. E. C. Ridgell.

OCONEE COUNTY MEDICAL AUXILIARY

The Oconee County Medical Auxiliary met Thursday, April 22, in the hospitable home of Mrs. J. W. Bell of Walhalla. The spacious Bell home was beautifully decorated with a profusion of spring flowers. Mrs. V. W. Rhinehart, President, presided.

An enjoyable feature of the meeting was the splendid report of the State meeting given by Mrs. Howard Brennecke. The auxiliary has been very busy compiling the "Saddle Bag" history. A very interesting paper was read on the life of Dr. John W. Wickliffe of West Union.

Mrs. Joe Johnson was welcomed into the auxiliary as a new member. She also favored the auxiliary with several vocal selections which were thoroughly enjoyed by those present.

Mrs. Bauer of Columbia was a visitor at the meeting.

At the close of the meeting a delightful social hour was enjoyed and the hostess served an elaborate chicken salad course with tea.

SPARTANBURG COUNTY MEDICAL AUXILIARY

The Auxiliary of the Spartanburg County Medical Society met Monday afternoon, April 26, with Mrs. Dennis Hill at Pacolet Mills, Spartanburg, S. C., with Mrs. Hill, Mrs. P. A. Smith and Mrs. Ralph Mostellar as joint hostesses for the afternoon.

Interesting reports from the state meeting held recently in Columbia were given at the time. The new officers of the Auxiliary presided at this, their first meeting.

The new officers include: Mrs. John Fleming, President; Mrs. Dennis Hill, Vice President; Mrs. D. C. Alford, Secretary and Mrs. Ralph Mostellar, Treasurer.

COLUMBIA MEDICAL AUXILIARY

The Columbia Medical Auxiliary met, Tuesday, May 4, at the lovely country home of Dr. and Mrs. Clarence L. Kibler. Mrs. Emmett Madden was elected President of the group for the ensuing year. The other officers chosen were: Mrs. David Adcock, Vice President; Mrs. C. H. Epting, Secretary and Mrs. Thomas Dotterer, Treasurer. Mrs. William Abel is the

retiring President of the Auxiliary.

The meeting was a delightful one, the first part being devoted to business and the latter half to a social hour. The hostesses for the occasion were: Mrs. Clarence L. Kibler, the members of the Executive Board, and Mrs. Manly Hutchinson, Mrs. S. B. Fishburne and Mrs. J. Richard Allison. Salad and sweet courses were served.

During the business session, reports of the very successful state convention held in Columbia during the month of April were given and Mrs. Watson Talbert told of work being done over the state in the interest of the student loan fund.

DR. Wm. D. HOPE OF LOCKHART, S. C., HONORED ON 50th ANNIVERSARY OF PRACTICE OF MEDICINE

The Union County Medical Society and his sons, Dr. Robert Hope and Mr. Chalmers Hope, both of Charleston, and Dr. Harold Hope, of Union, were hosts at a testimonial dinner March 5, celebrating the 50th anniversary of Dr. William D. Hope, of Lockhart, in the practice of medicine. The dinner was served at the Fair Forest Hotel, Union, S. C. Dr. Robert R. Berry, President of the Union County Medical Society presided.

Talks were made by Dr. R. C. Bruce, President of the South Carolina Medical Association, Greenville, S. C.; Dr. E. A. Hines, Secretary of the South Carolina Medical Association, Seneca, S. C.; and Dr. J. J. Lindsey, Spartanburg, a classmate of Dr. Hope.

Dr. Robert Hope then introduced the speaker of the evening, Dr. O. B. Chamberlain, of the faculty of The Medical College of South Carolina, Charleston, S. C. Dr. Chamberlain outlined the main facts of the life of Dr. Hope. He then took up the many changes of the past 50 years of medicine telling of the material changes in the progress of medicine; how the important major discoveries had brought about the increase in the life span of the individual and how a general practitioner had to adapt himself and adopt the new methods in order that he keep step with the progress of medicine. All

the conditions of the new era had been met by Dr. Hope, and his success was due to his ability to adopt the changes.

At the conclusion of the meeting Dr. Hope was presented with a handsome silver pitcher by his sons as a token of regard and respect. Dr. Hope is a physician of outstanding attainments in his profession, and the meeting was a worthy tribute to his accomplishments not only in medicine but in the broader sphere of civic interests.

Those present were: Dr. W. B. Lyles, Dr. Wm. Sheridan, Dr. William Bailey, Dr. R. P. Finney, Dr. W. S. Zimmerman, Dr. J. F. Crow, Dr. E. B. Gray, Dr. Paul Elkin, Dr. J. J. Lindsey, Dr. P. M. Temples, Dr. J. T. Carter, Dr. Martin Crook, all of Spartanburg; Dr. A. M. Wylie, Dr. W. R. Wallace, Dr. W. J. Henry, of Chester; Dr. Thomas, of Gaffney; Dr. H. B. Thomas, of Whitmire; Dr. R. C. Bruce and Dr. J. H. Crooks, of Greenville; Dr. E. A. Hines of Seneca; Dr. O. B. Chamberlain, Dr. Robert Hope and Mr. Chalmers Hope, of Charleston; Dr. W. J. Woolsey, of Waco, Texas; and the members of the Union County Medical Society as follows: Dr. R. R. Berry, Dr. A. P. McElroy, Dr. B. H. Montgomery, Dr. J. G. Goings, Dr. O. L. P. Jackson, Dr. Theo. Maddox, Dr. F. P. Salley, Dr. Harold P. Hope, Dr. F. P. Owings, Dr. P. K. Switzer all of Union; Dr. H. T. Hames of Jonesville and Dr. J. T. Jeter of Santuck.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT NO. 336 (37184)

Case of Dr. Cain

A 36 year old white woman, seamstress, admitted 12-7-36, died 1-10-37.

History: Apparent onset in Nov. 1936 with more profuse menstrual flow than usual, loss of appetite and weakness. Menses usually last 5-7 days, but Nov. period lasted about 13 days, with a profuse hemorrhage on the 9th day. Fever since onset of illness. Became very weak and pale. About Dec. 4th had a "nervous chill," with nausea and vomiting. A dull, gnawing pain appeared in the left lower quadrant of the abdomen, "which at times would go up into the region of the heart." Mass noted in this area which increased in size. Pain in lumbar region. Abdominal pain and tenderness, nausea and vomiting became worse. Previous history and family history apparently irrelevant. Denies luetic and Neisserian infection. Admits leukorrhoea.

Exam.: A rather stout, well developed woman, apparently in pain. Temp. 101.8, pulse 104, resp. 20, B.P. 100/80. Head neg. except for carious teeth. Lymph glands and thyroid not palpable. Chest completely normal. No widening of mediastinum. Cardiovascular: Heart not enlarged, rate fast, rhythm regular. No murmurs, no abnormal pulsations. No palpable sclerosis of arteries. Abdomen: Right rectus scar from previous appendectomy. Abdomen not distended. Tenderness over entire abdomen, most marked in lower left quadrant. Firm mass in lower left quadrant about size of grapefruit, very tender, fixed. No other masses. Vaginal Exam. (Dr. Cain): "Perineum poor. Cervix lacerated, infected and fixed. Cul-de-sac filled with tender inflammatory masses. Mass consisting of uterus and inflammatory tissue size of grapefruit fills central and left side of pelvis." Remainder of exam. negative.

Lab.: Urine (3 specimens) showed a few leukocytes in catheterized urine, but nothing very striking. Blood: Hb. falling from 68 per cent to 50 per cent, with WBC of 12,250 to 15,200, polys 72-85 per cent. Blood Kolmer and Kline 4 plus. X-ray of chest (1-7-37): some cardiac enlargement, no demonstrable pulmonary pathology in portable film. Culture from operation neg. Blood cultures (1-5, 1-6) neg. Sputum (1-6) Group IV pneumococcus.

Course: Temp. persistently elevated throughout course, rising to 102-103 each afternoon and falling to 99-100 in A.M. Towards latter part of course, variations even more conspicuous, rising to 104-105 in P.M., frequently showing two rises during 24 hrs. For last three days temp. rose continuously to reach

107.4 at time of death. Pulse rate below temp. curve on chart for first 3 wks., then about on a par with temp. Resp. generally 20-30, somewhat more rapid for last 2 wks. Patient's complaint continued unchanged, with pain in the abdomen, nausea and vomiting. On 12-22 the patient had a slight cough, but the lungs were clear. Heart exam. showed a diastolic murmur in the aortic region and along the left sternal border, with a systolic murmur at the apex. B.P. 92-44. Had chill on 12-25, but temp. did not rise above 101.4. On 12-30, laparotomy performed with the idea of draining an abscess, but no pus was encountered. The left broad ligament was very thick and board-like; drains were inserted. Temp. somewhat higher after operation. Blood transfusions given on 1-3, 1-5, and 1-7. On 1-4-37 complained of pain and tenderness in right upper abdominal quadrant, and the liver seemed enlarged. Rales were noted in the bases of both lungs. B.P. 82/40. On 1-5-37 frank bronchial breathing in right base. On 1-9-37, visible pulsations in carotids and radials, marked diastolic murmur at aortic area, with to-and-fro murmurs at apex. Edema of feet noted. On 1-10-37, patient grew rapidly weaker, altho "pulse seems unusually strong for condition of patient." B.P. 120/30. Died at 10:15 P.M.

Dr. Cain (Conducting): Mr. Durst, what is the situation here?

Student Durst: My impression is pelvic cellulitis, with septicemia, bacterial endocarditis and possibly pneumonia.

As to the cause of the pelvic cellulitis, we must speculate. The history of bleeding is somewhat suspicious of an abortion, which is frequently followed by endometritis and parametritis. If this can be ruled out, we must come back to the cervical infection which was noted on pelvic examination. From the cervix the inflammation could have spread to the uterus and parametria, giving systemic infection in that manner, although it would be unusual. The chills and irregular fever are very suggestive of septicemia.

The initial physical examination revealed that the heart was practically normal: there were no murmurs, and the blood pressure was normal. Subsequent examinations indicated an increasing lesion in the heart, with loud murmurs, pulsating arteries, and a marked drop in the diastolic pressure. I believe these indicate an acute bacterial, vegetative endocarditis. Towards the latter part of the course, I believe there must have been a rupture of the aortic valve, because I do not believe that vegetations along the free border of the valve would cause such a regurgitation as must have been present.

There is no note in the record of petechial hemorrhages. These may be seen in bacterial endocarditis, but are much more common in subacute bacterial endocarditis.

The edema of the feet and the swelling of the liver are those of a failing heart. Added to this in the terminal portion of the course are the physical findings of pneumonia. The presence of group IV pneumococcus does not confirm the diagnosis of pneumonia, because this group can be found in normal mouths.

To get back to the pelvis: the abnormality of the menses may indicate an old pelvic inflammatory disease, which has now flared up and given blood stream infection. Failure to find the organism in the blood stream is not significant to me, as the organisms are known to be only intermittently present in the circulation. I believe the type of infection was probably a short-chain streptococcus, chiefly because of the low blood count.

The blood Kolmer and Kline are positive evidence of syphilis, but I cannot conceive of syphilitic disease of the aortic valve developing as rapidly as the regurgitation has in this case.

Dr. Cain: Mr. Hope, what do you think?

Student Hope: I agree that the patient had an inflammatory condition in the pelvis, with parametritis, but I do not believe that it spread from the cervix. The cervical lesion as described in the abstract sounds like the ordinary lacerated and infected cervix, and systemic infection from such a focus must be very rare. I believe that her systemic infection probably followed an infected abortion, with a streptococcus endometritis. She may have had a peritonitis, as she was complaining of generalized abdominal pain. On the other hand, the negative blood cultures suggest that the infecting agent may have been the gonococcus; the gonococcus cannot be recovered in ordinary cultures, requiring a special technique even when present in considerable numbers.

The cardiac murmurs developed while she was in the hospital. They could hardly have been functional murmurs because of their loudness and their location at the base of the heart. To me they indicate a vegetative endocarditis.

Dr. Cain: Do you think that her lung findings might have been based on embolism?

Student Hope: It might well have been an embolic pneumonia; embolism commonly occurs in bacterial endocarditis. I can find nothing in the record to suggest embolism in other organs, however.

Dr. Cain: It was not recorded on the chart, but this patient also had pain in the region of the right kidney and over the left upper portion of the abdomen. All these symptoms are suspicious of embolism.

Student Hope: Yes, embolism in the spleen and kidney are quite common in bacterial endocarditis.

Dr. Cain: So you think she had a vegetative endocarditis, secondary to pelvic cellulitis. At operation, it appeared to me that it was a streptococcus infec-

tion because of the failure to find localized suppuration.

Mr. O'Daniel, what can you add to the discussion?

Student O'Daniel: I believe that the subject has been well covered. I believe that the etiological agent was either the streptococcus or gonococcus.

Dr. Cain: Do you think that the operation caused the septicemia in this case?

Student O'Daniel: No. The murmurs indicative of endocarditis were present before the operation.

Dr. Cain: I have never seen a mass disappear from the pelvis as this one did. She had a fixed, tender mass the size of a grapefruit in the pelvis on admission. This disappeared, and could not be found at operation.

Mr. Horger, what do you think of a hemoglobin of 50 per cent as a possible explanation of the murmurs about the heart?

Student Horger: I don't believe a hemoglobin of 50 per cent is low enough to produce a functional murmur, and this murmur was so loud that it could hardly have been a functional murmur.

I believe some pus would have been found in the pelvis if this were a gonococcal infection, so I think it must have been a streptococcus septicemia, too.

Student Durst: If this condition were due to the gonococcus, I believe the total white count would have been higher during the course of the septicemia.

Dr. Robert Wilson: I would like to know why Mr. Durst said that he believed the aortic valve must have been ruptured.

Student Durst: The drop in the diastolic blood pressure during the course of her illness was more than I would expect in simple endocarditis with vegetations on the aortic valve. Vegetations do not usually produce insufficiency of marked degree.

Dr. Cain: Let's hear what the autopsy disclosed.

Dr. Peery: I think Mr. Durst is to be congratulated on the accuracy with which he interpreted the clinical record. This was a case of pelvic inflammation, with vegetations on the aortic valve of the heart, and with rupture of the aortic valve. I agree with Mr. Durst that simple vegetations seldom produce this degree of insufficiency, and that a rupture of the valve best explains the marked valve leakage.

You see here (demonstrating autopsy specimens) the heart, with long, finger-like vegetations on the aortic valve, and with complete erosion of one of the valve cusps so that there was an opening in the cusp almost 1 cm. in diameter to permit leakage. There are no vegetations on the mitral valve.

The uterus and adnexa show extensive inflammatory fibrosis, molding all pelvic structures together into a fixed mass. This could hardly have been the mass which was noted on admission, however, and no trace of that could be found at autopsy. Possibly it was an abscess which resolved itself into these adhesions even before operation.

In addition, there were infarcts in the kidneys and spleen, and in the center of one of these there was suppuration. The condition in the lungs was pneu-

monia, not embolism. Those of you who gave that interpretation to the lung findings must have forgotten for the moment that the heart vegetations were on the left side, and hence emboli from the vegetations would lodge in the general circulation rather than in the pulmonary bed.

Post-mortem smears were taken from the tubal masses and from the cervix, but no organisms could be found. Possibly the embalming of the body interfered with their recovery. There was some blood from this patient in the laboratory of clinical pathology, where it had been used for matching blood for the transfusions. This blood was submitted to the gonococcus fixation test, and the result was a strongly positive reaction. Upon this basis we consider the case one of gonococcus valvulitis and septicemia. As has been pointed out, the negative blood cultures in an almost obvious case of septicemia take on new meaning, realizing that the gonococcus cannot be cultured by ordinary methods. The negative culture from operation seems to me to be even more important; surely if the infective agent had been the streptococcus it should have been recovered on culture.

It is, then, a case of gonococcus infection of the uterine adnexa, with gonococcal septicemia, gonococcal endocarditis; and embolism in the systemic circulation.

Dr. Cain: On what valve are the vegetations of gonococcus endocarditis usually found?

Dr. Peery: They are usually found in the left side of the heart, as was the case here. But the gonococcus might also cause vegetations on the valves of the right side of the heart. Probably most cases of right-sided valve vegetations are due to the gonococcus.

ANNOUNCEMENT

American Board of Surgery Organized

In answer to the widespread demand for an agency which will attempt to certify competent surgeons the American Board of Surgery has recently been organized. This Board is a member of the Advisory Board of Medical Specialties which includes all of the boards of certification for the different medical specialties which have been already organized. Since boards were in existence for the certification of practitioners of some of the surgical specialties such as ophthalmology, otolaryngology, obstetrics and gynecology, genito-urinary surgery and orthopedic surgery it is expected that the American Board of Surgery will be responsible for the certification of general surgeons as well as those practicing in the remaining specialized subdivisions of surgery.

Acting upon the invitation of the American Surgical Association the following surgical societies cooperated in the creation of the American Board of Surgery: the American Surgical Association, the Surgical Section of the American Medical Association, the Amer-

ican College of Surgeons, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association and the New England Surgical Society. The first three of these bodies which are national in scope have three representatives on the Board. All of the other societies have one representative each. The representatives of the cooperating societies are nominated by the society which they represent and upon approval of the Board shall become members of it. The term of membership on the Board will be six years. The following were chosen to represent the cooperating surgical societies:

Representing the American Surgical Association: Dr. Evarts A. Graham, Dr. Arthur W. Elting, Dr. Allen O. Whipple.

Representing the American College of Surgeons: Dr. Donald Guthrie, Dr. Erwin R. Schmidt, Dr. Harvey B. Stone.

Representing the Surgical Section of the A. M. A.: Dr. Fred W. Rankin, Dr. Howard M. Clute, Dr. J. Stewart Rodman.

Representing the New England Surgical Society: Dr. Philemon E. Truesdale.

Representing the Western Surgical Association: Dr. Thomas Orr.

Representing the Southern Surgical Association: Dr. Robert Payne.

Representing the Pacific Coast Surgical Association: Dr. Thomas Joyce.

The following officers were elected:

Chairman—Dr. Evarts A. Graham.

Vice-Chairman—Dr. Allen O. Whipple.

Secretary-Treasurer—Dr. J. Stewart Rodman.

Two groups of candidates are recognized for qualification by the Board.

(A) Those who have already amply demonstrated their fitness as trained specialists in surgery.

(B) Those who, having met the general and special requirements exacted by the Board, successfully pass its qualifying examination.

The first of these groups, the Founders Group, upon invitation by the Board will be chosen from the following:

(1) Professors and Associate Professors of Surgery in approved medical schools in the United States and Canada.

(2) Those who for fifteen years prior to the Board's organization have limited their practice to surgery.

(3) Members of the American Surgical Association, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association and the New England Surgical Society, who are in good standing January 9, 1937.

All applications for the Founders Group must be received within two years of the Board's organization, January 9, 1937. No candidates for the Founders Group will be considered after that date.

Requirements for those to be qualified by examination will be as follows:

(1) Graduation from a medical school of the

United States or Canada recognized by the Council on Medical Education and Hospitals of the A. M. A. or graduation from an approved foreign school.

(2) Completion of an internship of not less than one year in a hospital approved by the same Council, or its equivalent in the opinion of the Board.

(3) *Special Training.* A further period of graduate work of not less than three years devoted to surgery taken in a recognized graduate school of medicine or in a hospital or under the sponsorship accredited by the American Board of Surgery for the training of surgeons. This period of special training shall be of such character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology and biochemistry is emphasized. Knowledge of these sciences as applied to clinical surgery will be required in the examination. Adequate operative experience in which the candidate has assumed the whole responsibility will be required. An additional period of not less than two years of study or practice in surgery.

(4) The candidate must present to the Board sufficient evidence of good moral character as to justify it in the belief that he will not engage in fee splitting and other dishonest practices.

It is expected that the Board, with the assistance and cooperation of the American Medical Association and the American College of Surgeons, will be able to increase the facilities which now exist for the adequate training of young surgeons by means of residencies, fellowships, etc., in suitable hospitals.

The above requirements, especially those referring to surgical training, are subject to change from time to time as the existing opportunities for training in this field of specialization may be broadened.

The qualifying examination will be divided into two parts; Part I, written, and Part II, clinical, bedside and practical. The written part, Part I, will concern itself with general surgical problems and with the clinical application of the basic sciences of surgery to these problems. This examination will cover a period of three hours each and will be held simultaneously in as many centers as are necessary to accommodate the number of applicants who are eligible.

Part II, is entirely oral and will also concern itself, in the main, with general surgery and, as stated for Part I, clinical application of the basic sciences to the clinical problem represented. In addition to this, in Part II, an examination will be given to test the candidate's knowledge of operative surgery, X-ray plate interpretation and the principles and application of surgical anesthesia. This examination will be held in as many centers as the Board may determine necessary to accommodate the eligible candidates. Re-examinations will be allowed providing one year shall elapse between examinations.

The fee for Group A, the Founders Group, shall be \$25. The fee for Group B shall be \$75, payable as follows: \$5 for registration fee, which shall be returned if the candidate is not accepted for examination; \$20 for Part I; and \$50 for Part II. The same fee will be required for each reexamination. Once the candidate has become qualified, he will have no further financial obligation to the Board.

This Board is a non-profit organization. All fees will be used, after a reasonable amount is set aside for necessary expenses in maintaining its office, conducting examinations, etc., to aid in improving existing opportunities for the training of the surgeon.

A certificate attesting to a candidate's qualifications in surgery after meeting the requirements of the Board will be issued, having been signed by its officers.

Any certificate issued by the Board shall be subject to revocation by the Board at any time in case it shall determine in its sole judgment, that a candidate, who has received a certificate, either was not properly qualified to receive it or has become disqualified since its receipt.

The Board will hold its first examination (Part I, written) on September 20, 1937. All inquiries concerning applications for this examination should be received by the Secretary's office promptly.

Requests for booklets of information, application blanks, and other information should be addressed to the Secretary—Dr. J. Stewart Rodman, 225 South 15th Street, Philadelphia, Pennsylvania.

REPORT

REPORT OF SECRETARY-TREASURER SOUTH CAROLINA MEDICAL ASSOCIATION

E. A. Hines, M.D., Seneca, S. C. To The House of Delegates, Columbia, S. C., April 13, 1937.

At the close of the fiscal year, December 31, 1936, the paid up membership including Honorary Fellows stood at 745. These members resided in 38 counties, leaving 8 counties without definite organizations. On March 1, 1937, the enrollment had reached 858, and several unorganized counties have begun to function again. The Directory of the American Medical Association published about a year ago gave South Carolina 1,335 physicians and an estimated population of 1,750,000 people. The number of physicians has remained practically stationary for several years. The potential membership for the Association will probably not exceed 950 under the most favorable conditions. There has been a noticeable increase of interest all over the State in both the scientific programs and the organization itself. This attitude is reflected daily in the Headquarters office by the enthusiastic reports coming in. Many delinquent members are being reinstated, and there is much greater interest in the Journal. Improvement in the general economic situation is responsible in large part for more prompt payment of dues. The Chairman of the Council will present a detailed account of the financial status of the Association and Journal, but it is worthy of comment here that only by heroic economy were the Association and Journal able to exist through the several years of the depression. It will be recalled that the creditable reserve fund was wiped out completely; that the advertising for the Journal dropped nearly 50 per cent and several hundred members were unable to pay their dues. The Journal was saved only because of the continued support of the Cooperative Advertising Bureau of the American Medical Association. In the course of time the closed banks in which the funds were deposited began to pay substantial dividends. The advertisers began to return and back dues to be paid, so that now it may be said that the reserve has been largely restored.

All this leads to the observation that both the Association and Journal could not again meet a great emergency with the present resources, and there is little hope for entering upon a period of expansion. It must be admitted that the dues stand just as they did February 14, 1848, when the Association was organized, and the Journal advertising receipts in normal times vary little from the receipts of twenty five years ago, while the cost of printing has increased three hundred per cent. Many State Associations have had a somewhat similar experience and met the issue by increased annual dues and here and there by added personnel to secure more advertising. It is worthy of note that during 1936 the size of the Journal was increased by about twenty five per cent. For the first time in many years the Journal was able to publish practically every paper of merit submitted. Many papers came from other sections of the country. Your Secretary-Editor wishes to express his appreciation for the loyal support of the Assistant Editor and other members of the Staff.

As the Association enters upon its ninetieth year the challenge for a militant organization is urgent. American medicine is undergoing profound changes before our very eyes. This was brought out clearly at the Conference of State Secretaries and Editors of State Journals held in Chicago at the Headquarters of the American Medical Association in November. Perhaps never before had there been such unanimity of opinion along this line from this most important and far reaching of our many medical organizations. It was conceded that only a united front of organized medicine could solve the perplexing problems we now face in a satisfactory manner.

Your Secretary wishes to call particular attention to the marked success of the Piedmont Post Graduate Clinical Assembly, now in its fourth year and held at Anderson, South Carolina, each September. It is fitting that here and now much of the credit for the success of this new organization be given to one of its founders, the late Dr. D. J. Barton, President of the Anderson County Medical Society, who died a few months ago. Dr. Barton had submitted

additional plans for the enrichment of the courses of lectures and extension into other States.

The members of the faculty of our State Medical School have been most generous in their support of these refresher courses, as have distinguished faculty members of medical schools in other states. Approximately one hundred physicians attend these lectures at the present time. It is not too much to hope that similar organizations may be promoted in other sections of the State, so that all of the members of the Association who desire to do so may have access to them.

At this session of the House of Delegates certain amendments to the Constitution and By-Laws will be introduced. These proposed amendments have been under consideration by the members of the Association for a year. They have been published in the Journal and sent down to the Constituent County Medical Societies.

Your Secretary wishes to acknowledge his gratitude for the whole hearted cooperation of the officers of the State Medical Association and in fact for the cooperation of the entire membership throughout the year. He has had the unstinted support of the President of the Association, Dr. R. C. Bruce, who has visited the Headquarters office on many occasions and manifested a deep interest in every detail of the Association's activities. The Chairman of the Council and every member of that body have been most helpful in their relationship to the Secretary's office. All of these men have traveled widely throughout the State, meeting with Constituent County and District Medical Societies, giving freely of their time and money to promote the best interests of organized medicine in South Carolina.

Now a word about the program for this meeting of the Association. It must be evident to you that it did not just happen without the serious consideration of many individuals. Your Secretary wishes to express his deep appreciation to the Columbia Medical Society and its various committees, including the Woman's

Auxiliary, for their enthusiastic cooperation to the end that this meeting be second to none anywhere in the country. The President selected the distinguished guests with the keenest discrimination as to their fitness for participation in the general plans of the program committee. Dr. Fishbein, who was to have been one of our guests, entered into our plans nearly a year ago with the greatest possible enthusiasm. His advice and his encouragement inspired the officers of the Association tremendously. Dr. A. B. Cannon, of New York, another distinguished guest, graciously consented to enter freely into our plans also for holding a great clinic on skin diseases, a policy which the Association has long fostered. The program committee urges every member of the Association, even at some cost of convenience and time, to remain for this clinic.

Finally, your Secretary wishes to bring to your attention the dynamic report of the American Foundation, designated "American Medicine Expert Testimony Out of Court." You have read in the last few days many references in the public press to this report and have also read the most comprehensive editorial perhaps ever published on any subject in the Journal of the American Medical Association, April 8, 1937. In the same issue of the A.M.A. Journal there is in addition an exhaustive interpretation of the various phases of the report. This document came off the press April 5 in two volumes containing the digested comments of some five thousand doctors throughout the United States on American Medicine as it Impresses Them Today. Dr. Robert Wilson, Dean of the Medical College, at Charleston, is a member of the Advisory Committee. A number of the members of the South Carolina Medical Association contributed to the report. It is brought to your attention now because it appears to be an honest effort to crystalize the thoughts of a cross section of the members of organized medicine in America as to the problems most acute at the present time. These volumes may be secured for \$3.50 from The American Foundation, 565 Fifth Avenue, New York.

SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

Basal metabolic rate in the diagnosis of functional disturbances of the thyroid gland, by W. H. Prioleau, Charleston. *S. Med. & Surg.* 99:68, Feb. 1937.

There is no idea of disparaging the diagnostic value of the basal metabolism test, for it is well recognized as a valuable aid in the differential diagnosis of a large number of cases. However, it should be constantly borne in mind that the diagnosis of thyroid disturbances cannot be made in the absence of other clinical manifestations of the disease, whatever the basal metabolism rate.

Clinical study of 2,288 cases of appendicitis, by J. R. Young, Anderson. *South. Surg.* 6:131, April 1937.

Besides educational measures, to attack the problem of appendicitis there should be:

1. Frank staff discussion of all fatal cases.
2. Staff discussion of successful methods of handling serious cases.
3. Providing for easy and competent consultations.
4. Securing the enthusiastic support of the entire hospital personnel.

Fracture of the hip joint, by A. T. Moore, Columbia. *Surg., Gyn., and Obst.* 64:420, Feb. 1937.

A general discussion of this subject and an extended description of the author's method. A fully illustrated and complete article.

A hydronephrotic kidney containing four liter of urine, by G. T. Tyler, Greenville. *South. Surg.* 6:144, April 1937.

The unusual capacity of this kidney pelvis—4 liters—and the emergency operation under the mistaken diagnosis of ovarian cyst with twisted pedicle, makes this case of interest.

Improved growth in rates of iodine deficient diets, by R. E. Remington, Charleston. *J. of Nutrition* 13:123, February 1937.

A suitable diet for goiter studies on rats is worked out. On this diet rats reach maturity, producing normal numbers of living young, despite almost complete absence of iodine and colloid from the thyroid gland.

Justice for the general practitioner, by D. Jennings, Bennettsville. *South. Med. & Surg.* 99:105, March 1937.

A justification of the general practitioner and some reflections on the limitations of the "high-hat" specialist.

Multiple stage thyroidectomy with preoperative iodine therapy, by W. H. Prioleau, Charleston. *South. Surg.* 6:145, April 1937.

The safety of thyroid surgery was built upon the principle of multiple stage operations in the active hyperthyroid and otherwise bad-risk cases. The use of iodine as a preoperative measure generally makes the patient a safer operative risk but in a certain number of cases this factor of safety is overestimated.

Prostatic hypertrophy complicated by solitary kidney cyst, by P. E. Huth, Sumter. *South. Med. & Surg.* 99:134, March 1937.

Report of a case with a fatal issue.

A study of glycerin suppositories, by W. A. Prout, Charleston. *J. Am. Pharm. A.* 25:1123, December 1936.

A pharmacological study.

Thomas Cooper as an itinerant chemist, by E. V. Armstrong, Philadelphia. *J. of Chem. Ed.* 14:153, April 1937.

Thomas Cooper's services to chemical education and to industry consist chiefly in the stimulus which he gave to science in the curricula of many institutions in a day when the humanities held sway and science was looked upon askance; and in the assistance rendered to early American industry by the clear-cut and useful information which he disseminated as author and editor of scientific publications.

BOOK REVIEWS

SYNOPSIS OF PEDIATRICS. By John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by, T. S. Zahorsky, B.S., M.D., Instructor in Pediatrics, St. Louis University School of Medicine, and Assistant Pediatrician to the St. Mary's Group of Hospitals.

Second edition, St. Louis, The C. V. Mosby Company, 1937. Price, \$4.00.

This is an excellent epitome of pediatric practice. A demand for revision has come about in within three years from the original date of publication, showing the popularity of the book. It is a handy volume, well printed, with numerous illustrations.

THE SOCIAL COMPONENT IN MEDICAL CARE. A Study of One Hundred Cases from the Presbyterian Hospital in the City of New York. By Janet Thornton, Director, Social Service Department, in collaboration with Majorie Strauss Knauth, Assistant Physician, Department of Medicine, New York: Morningside Heights.

Columbia University Press, 2960 Broadway, New York City. Price, \$3.00.

Social service in the modern hospital in this country has had a phenomenal development since Dr. Richard C. Cabot thirty years ago began such service at the Massachusetts General Hospital in Boston. To anyone who visited the wards and clinics of this Boston institution in the early days of this new departure in medicine there were many amazing situations observed. Those early pioneers seemed to be inspired that a new deal should be inaugurated in connection with the physician's activities in the care of his patients not hitherto considered of much importance in the recovery of the patient. Slowly but surely Dr. Cabot's ideas and ideals prevailed the country. The book under review is an admirable exponent of the pioneer work alluded. In the first place an appropriation of ten thousand dollars enabled the interested parties to pursue these studies of one hundred patients admitted to the great Presbyterian hospital in New York City. There was a cooperation between the Massachusetts General Hospital and this particular investigation and it is a fine piece of work. It is indeed fascinating to follow these case reports into the many by-paths which have clearly influenced the recovery or otherwise of each individual case. Following the depression years such a study is all the more important for it seems

that depression years continue to come along at rather frequent intervals in the history of this country and thus affect the health of our people. We recommend the book most heartily.

BRIGHT'S DISEASE AND ARTERIAL HYPERTENSION. By Willard J. Jones, B.Sc., M.D., F.A.C.P., Clinical Professor of Medicine, School of Medicine, University of Southern California, Los Angeles; Attending Physician to the Pasadena Hospital, Pasadena, California. Illustrated.

W. B. Saunders Company, Philadelphia, London, 1936.

This book is the outcome of more than twenty years of observation and note taking on the progress of patients with Bright's Disease. Naturally there has been an extensive study of autopsy records in addition to other studies. The opening chapter gives a brief description of the pioneers in the study of Bright's Disease and we are keenly interested in his tribute to a South Carolinian as follows:

William Charles Wells (1757-1817)

William C. Wells, Born in Charleston, South Carolina, educated in Scotland, and later physician to St. Thomas' Hospital, London, published, prior to 1812, observations on the dropsy of scarlet fever in which he mentioned that "the urine contains almost always, the serous and sometimes the red matter of blood." He subsequently reported results of the examination of the urine of 130 patients affected with dropsy from other causes than scarlet fever. He stated that "in about a third of the cases serum was detected in the urine, its quantity was small, the bulk of the coagulum, produced by heat and nitrous acid, being from one tenth to one fortieth of that of the urine. In 5 cases the coagulum became firmly solid and in 7 became a soft solid. Urine in dropsy, when it contains serum, is often more abundant than in health, it is sometimes discharged in the quantity of six pints daily, in one person the daily quantity was ten pints."

THE MEDICAL CLINICS OF NORTH AMERICA. September, 1936:

W. B. Saunders Company, Philadelphia, London.

This is the St. Louis number which means that the resources of a great medical center have been at the command of the authors. Under the head of Encephalitis there is a write up of the epidemic in St. Louis in 1933. These clinics in general continue to be worthy of frequent reference by the busy doctor.

SOCIETY REPORTS

MEETING OF FEBRUARY 23rd, 1937

Minutes of the Regular Meeting of the Medical Society of South Carolina, Tuesday, February 23rd, 1937, 8:30 P.M. at the Roper Hospital.

The meeting was called to order by the President, Dr. W. Atmar Smith.

In addition to the members the following guests were present:

Dr. W. F. Kinard, of the Medical College,

Drs. Wimberly, Reed and Baker, of the U. S. Naval Hospital.

Dr. Robert Malcolm, Dr. Hooker, Drs. Walter Mead, Eugene Hood, and Lide of Florence.

Drs. Floyd Rogers, F. M. Routh, Theodore DuBose and T. A. Pitts, of Columbia.

The minutes of the preceding meeting were read and confirmed.

Dr. Mood then read a letter from Dr. Victor Morawetz concerning the gift of Stock Certificates valued at approximately \$75,000.00 for building and maintaining a Colored Isolation Unit at Roper Hospital.

Dr. Mood moved that the Society authorize the Board of Commissioners to turn over these Stock Certificates to the Board of Finance with the request that they be sold and the proceeds held for the construction of this Isolation Unit.

This motion was seconded and passed.

Dr. Cannon moved that the Secretary write a letter of thanks to Mr. Morawetz.

This motion was seconded and passed.

Dr. Maguire then read the following Resolutions on the death of Dr. James Avery Finger:

James Avery Finger, M.D. was born in Charleston, S. C., July 29th, 1893, and died November 23rd, 1936. He was the son of James Avery Finger and Caroline Boylston Cordes. His father, for many years, was an outstanding educator in this city.

After his early education in the public schools, James Avery Finger entered the High School of Charleston, where he was graduated in 1900, winning the highest award in his class, the Walter M. Whitehead prize. After his course at the High School, he enrolled in the freshman class of the College of Charleston, where he remained for two years. He entered the Medi-

cal College of the State of South Carolina in 1906 and received his degree of M.D. in 1910. At this institution he still maintained his former high scholastic standing and was graduated with first honor in his class.

Just after his graduation, he joined the Medical Society of South Carolina, in which Society he remained as a loyal and valued member until his death. In 1918 the Society honored him by electing him a member of the Board of Commissioners, and he remained a member of this Board until 1922, serving for five years.

During his Medical School days, he never wavered in his interest for that branch of the profession which he later developed so well. Surgery did not appeal to him, but Internal Medicine did. He was distinctly an Internist, and spent all his energies and time towards developing in this branch of Medicine a high degree of proficiency. Then shortly after his graduation he was appointed by the Faculty of the Medical College of South Carolina as an Assistant in Medicine. From this he advanced steadily through the years, and at the time of his death he ranked as an Assistant Professor of Medicine and one of the Visiting Physicians of Roper Hospital.

The Medical Societies in which Dr. Finger held membership were The Medical Society of South Carolina, The South Carolina Medical Association, and The American Medical Association. He was also a valued member of the Widows and Orphans of the Medical Society.

Among fraternal organizations Dr. Finger was well known. He was a life member of Landmark Lodge and Scottish Rite. He was also a member of the South Carolina Society.

When the A. K. K. fraternity organized at the Medical College, Dr. Finger was invited to be one of the Charter members. To this invitation he assented, and up to the time of his death showed much interest in this fraternity.

Among his friends and close associates, Dr. Finger was a delightful companion. Being highly intellectual, he was always enlightening and instructive in his conversation. He was well read along all lines and his judgment of things was unusually sound and convincing.

THEREFORE—Be It Resolved that in the death of Dr. James Avery Finger the Medical Society of South Carolina has lost a valued member and one whose passing will be felt very keenly.

Resolved, also, that a blank page in our Minute Book be inscribed to his memory and a copy of these Resolutions be forwarded to his bereaved family.

(Signed)

Daniel L. Maguire,
James J. Ravenel,
John J. La Roche.

Upon Dr. Robert Wilson's motion, the Society adopted these Resolutions.

The Secretary then made a brief report that the Medical Books left to the Society by Dr. Joseph Hume had been received and were in course of repair and arrangement, and furthermore that Mrs. Hume had offered to bear the expenses of the repairs for the books and to furnish an appropriate book-plate.

A sample of this book-plate was exhibited to the Society.

The Secretary then read a letter from the Dean of the Medical School of the University of Georgia, calling attention to a post-graduate course which was being offered there.

Dr. Robert Wilson then read various letters from a number of Universities concerning their manner of management of Birth-Control Clinics. These were received as information.

Scientific Program

The Scientific Program consisted of an address by Dr. James Alexander Miller, of New York, on "The Evolution of Pulmonary Tuberculosis."

Dr. Miller was introduced by Dr. A. J. Buist. Following the address, Dr. Miller answered questions which had been asked by Drs. Miles and Hood.

The meeting then adjourned.

Respectfully submitted,

J. I. Waring, Secretary.

RIDGE MEDICAL SOCIETY MEETING

The Ridge Medical Society met in Dr. Timmerman's office, Monday evening, the nineteenth of April, 1937, at 7:15 o'clock. The

attendance wasn't quite as large as usual. In addition to the members present there were four visitors: Drs. D. F. Adcock, W. J. Bristow, T. A. Pitts and R. G. Doughty all of Columbia.

Dr. M. B. Woodward made an interesting talk on health and disease records. He gave many illustrations showing the failure of having made the reports complete and asked for the cooperation of all of the doctors in making the reports as explicit as possible. Dr. Wise asked some pertinent questions which were of value.

Dr. W. J. Bristow, President of the Columbia Medical Society made an interesting and instructive address on disturbance of vision and brain lesions and illustrated same with X-ray pictures. Dr. R. G. Doughty of Columbia discussed Dr. Bristow's address very instructively and also illustrated some of his remarks with X-ray pictures. He also gave a resume of some of his operations on the brain and reported some of the cases and the results.

Dr. T. A. Pitts, councilor of this District in discussing these addresses spoke of the benefit of air injections into the brain through perforations of the cranium in obtaining the best X-ray pictures of the brain. He commended Dr. Doughty highly for his successful work in brain surgery. He also spoke of the time necessarily consumed in these operations. Some of them may take as long as six hours.

Dr. W. P. Timmerman told of having seen some of the patients upon whom Dr. Doughty operated and of the excellent results.

The following were chosen as officers for the next year:

Dr. P. A. Brunson, President and Dr. M. L. Brogden, Vice President for Lexington County.

Dr. J. N. Crafton, Vice President for Edgefield County.

Dr. J. D. Waters, Vice President for Saluda County.

Dr. W. P. Timmerman was reelected, Secretary-Treasurer.

The President was authorized to appoint the various committees. Supper was served in The Rutland Hotel where short impromptu speeches were made by our visitors and a few others.

O. P. Wise, President Pro Tem.
W. P. Timmerman, Secretary.

NEWS ITEMS

Dr. James T. Quattlebaum, after six months study at the Mayo Clinic, Rochester, Minnesota, in the Department of Internal Medicine, returned to Columbia, May 1, to resume his practice, limiting it to Internal Medicine. He has opened offices at 1517 Hampton Avenue.

Dr. and Mrs. C. J. Scurry, of Greenwood, left the latter part of April for New York to sail for Europe. Dr. Scurry is spending several months there attending medical clinics.

The following physicians from South Carolina attended the meeting of the American College of Physicians held in St. Louis, Missouri, April 19-23: Dr. O. B. Mayer, of Columbia; Dr. Hugh Smith, of Greenville; Dr. Kenneth M. Lynch, of Charleston; and Dr. E. A. Hines, Sr., of Seneca.

Dr. R. B. Taft, of Charleston, addressed the Columbia Rotary Club May 10 at the Jefferson Hotel on the scientific aspects of radium. Dr. Taft illustrated his remarks with the use of scientific equipment demonstrating the throwing off of rays by radium.

Dr. E. A. Hines, Jr., a member of the Staff of the Mayo Clinic, Department of Internal Medicine, Rochester, Minn., visited his parents Dr. and Mrs. E. A. Hines, Sr., of Seneca, during the month of May. Dr. Hines, Jr., read a paper at the meeting of the American College of Physicians held in St. Louis, Mo.

Dr. Martin M. Teague accepted a recent offer to serve a three months period as Resident Surgeon of the Burlington County Hospital, Mount Holly, New Jersey, one of the largest institutions of the kind. He is a graduate of the Medical College of South Carolina, and his Internship was taken at the Roper Hospital. He practised his profession with his father, Dr. Jessie H. Teague, of Laurens.

Dr. E. A. Hines, Sr., addressed the Pre Medical Club of Clemson College, S. C., at its meeting, May 6, on the following subject, "Some Pre-Medical and Post Medical Thoughts." The majority of the members have been accepted by various medical schools for this coming fall.

Dr. Hugh Smith and Dr. Gertrude Holmes, both of Greenville, addressed the Greenville Medical Study Club at its regular meeting, Thursday night, May 6, at the Table Rock Laboratories, Greenville, S. C. Dr. Smith spoke on "Protamine Zinc Insulin," and Dr. Holmes presented an historical sketch.

Dr. R. E. Seibels, of Columbia, Chairman of the Committee of Maternal Welfare of the S. C. Medical Association, was one of the invited guest speakers of the North Carolina State Medical Association at its meeting, May 3-5. He spoke before the division of Obstetrics and Gynecology on "Maternal Mortality in South Carolina."

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THE SOUTH CAROLINA WORKMEN'S COMPENSATION LAW

By

JOHN H. DUKES,

*Chairman South Carolina Industrial Commission,
Columbia, S. C.*

Gentlemen of the Medical Profession:

I am glad to discuss with you the South Carolina Compensation Act. The medical profession is concerned with this Act for reason that the Act in its provisions supposes the assistance of the profession in its administration.

The Compensation Act is ancient social legislation when compared with more recent legislation passed under the New Deal. The first Compensation Law was adopted in Germany in 1884. Austria had such a law in 1887 and England ten years later. The Law is the result of realization on the part of governments, sociologists, and industrialists that a common law system is inadequate to provide for the worker in industry.

It has, of course, always been regarded as the economical thing to do by the industrialist that a machine which has been broken be fixed rather than junked, and where it has been necessary to repair, the cost of repair has been figured into his overhead that the price asked for the goods might pass on to the consumer the expense of repair and upkeep—also when it was necessary to junk the broken machinery, to figure into production costs the cost of replacement to the same end that the general public through the consumer assume the expense.

This principle is, of course, sound business and must be practiced by the producer if he is to survive. It is the only practical thing to do.

However, observe that without men or opera-

tors the producer cannot operate. It would appear, then, that it is at least humane to regard the worker in the same light as a machine. If any system other than a compensation Act fails to provide for the worker at least in a manner equal to this provision made for machinery, it is a poor system and needs improving.

We all know that the common law system antedates considerably the industrial revolution, and that prior to that time it was thoroughly developed in its basic principles with reference to its provisions under which it would permit the recovery by an employee from an employer for injuries sustained arising from the employment.

There are three defenses under that system which are open to the employer where circumstances attendant on the injury are such that they can be pleaded.

First: The fellow-servant doctrine, meaning briefly that if the fault of injury was that of a fellow workman, the employer was relieved of responsibility.

Second: The assumption of risk doctrine, which provides that one seeking a hazardous employment assumes the responsibility for the injury for himself, and

Third: The principle of contributory negligence. Of course this doctrine is to the effect that where the employee contributed to the cause of the injury and without his contribution the injury would not have occurred, again there is no responsibility on the part of the employer for the injury.

It was taken as a matter of judicial notice in one of the courts of this country that these doctrines were responsible for 80 per cent of the accidents suffered under the common law in employment not being compensable. When you consider the fact "*TO ERR IS ONLY*

*Read before the South Carolina Medical Association, Columbia, S. C., April 15, 1937.

HUMAN" and that an efficient machine does not err where the purpose for which it is designed is concerned, it would definitely appear that under the Common law system the "breaks" are in favor of the machine rather than the employee.

Without a compensation law no one assumes responsibility as an obligation until required by the courts.

The Compensation Law does not consider as an element of the employer's liability the fault or negligence of either party—only if the injury or death was occasioned by the intoxication of the employee or by the wilful intention to injure or kill himself or another will the employer be absolved from responsibility.

The Compensation Law supposes that the employer will pass off the cost of rehabilitation of the injured as he does in the case of breakage of machinery, to the public by incorporating in the price asked for the goods the cost of compensation. Any other system to the employer is a gamble. With no provision being made by him for injuries he may operate successfully and then again he may be closed up.

At present of the States of the Union, 46 have compensation laws. Massachusetts adopted the first law in 1911 and in the same year ten states followed suit. The Federal Government has within its direct supervision and administration the Harbors and Longshoremen Act, the Rail Road Employees Act, and the Federal Employees Act. Also Alaska, Hawaii, and Puerto Rico have compensation laws.

Unquestionably the medical profession enjoys the confidence of the public as much if not more than any of the other professions—and the reasons, I believe, are clear enough. The constant association with the public and caring for its ailments naturally fosters confidence.

Because of this situation, the position occupied by the medical profession and the fact that compensation is paid according to the disability involved, the profession and its attitude is an important factor in the administration of a Compensation Act.

The physician is in a position to discourage either on the one hand a tendency on the part of the insurance carrier or employer to prema-

turally return to employment a disabled employee, or malingering on the part of the employee after disability has ceased. From the point of social aspect of this law, I believe this to be one of the best opportunities for the physician to be of service.

Our Commission has adopted and made use of medical forms recommended by the International Board of Compensation Commissions. These forms are so designed that all the information in the majority of cases necessary for properly handling a compensation case is given. The proper completion and submission of the same is a real service to the Commission, and we have been favored in the great majority of cases in the past in having the cooperation of your profession. We appreciate the fact that the completion of these two forms, one as soon as possible after treatment begins, and the other when bill is presented, calls for use of your time in excess of that necessary for the treatment of the case, but in completing and submitting these reports you are performing a real service to the State and the parties under the Compensation Act.

In those cases in which we have experienced difficulty in this respect we feel that same was due to the unfamiliarity of the Law. I can assure you that when you cooperate with us by submitting these reports, it will be appreciated by the Commission.

The employer is required to secure promptly for the injured worker medical attention. Section 25 of the South Carolina Workmen's Compensation Act provides that the employer is to tender to employee medical, surgical, hospital, and other treatment including medical and surgical supplies as may be reasonably required, for a period of time not exceeding ten weeks from the date of injury to effect a cure or give relief and for such additional time as in the judgment of the Commission will tend to lessen the period of disability.

This section means for practical purposes that provision of the Act relating to medical treatment provides unlimited medical treatment within the discretion of the Commission. Section 25 also provides that it is the employers' responsibility to furnish such original artificial members as are reasonably necessary at the end of the healing period.

An employee must accept medical attention provided him by his employer, and the refusal to do so will prevent him from receiving compensation during the continuance of his refusal unless in the opinion of the Industrial Commission the circumstances justified the refusal, in which case the Industrial Commission may order a change in the medical or hospital service.

Provision is also made for the employee in an emergency, on account of failure of employer to furnish medical attention, to obtain the services of a physician the cost for which is paid by the employer or Insurance Carrier if ordered by the Commission.

When compared with other compensation Acts of many states, the medical provisions in our Act are very liberal. In nearby states the medical provisions of their Acts are limited to expenditures of \$100 to \$200. One or two Acts provide that the employer's responsibility is to pay only a part of the medical expense. Another that it is an optional matter with employer whether it will assume any of the medical expense. These States, of course, represent the ultra-conservative and are far in the minority. However, there are only nine other states that appear to have as liberal provisions as we do.

With further reference to medical features of the Act, I wish to point to those of Section 27. Same are to the effect that so long as an employee claims compensation, if so requested by his employer or ordered by the Industrial Commission, he shall submit himself to a physician for examination, and the refusal on his part to undergo such examination will prevent his receiving compensation during such refusal unless he gives to the Commission sufficient justifiable reasons for his refusal. At such examination he has the right to have present his own physician or surgeon to be paid by him.

The purpose of section 27 is of course to ascertain true evidence in connection with hearings, and it also provides for requirement by either the Industrial Commission or the Insurance Carrier, the performance of an autopsy.

A matter of no minor importance is the subject of fees for medical services under the Act. Section 26 of the Act stipulates that the pecuniary liability of the employer or insurance carrier shall be limited to such charges as prevail in the same community for similar treatment

of injured persons of a like standard of living *when such treatment* is paid for by the injured person.

The premium paid by the employer for insurance coverage is based first upon the hazard or danger of injury the employee is subjected to in the particular industry, and the amount is determined by charging so much per cent for \$100.00 payroll. It can be readily seen then that it costs more to insure a \$30.00 per week man than one making \$10.00. This principle is in keeping with the section referred to, which is practically the same throughout the country.

We were fortunate from the first in having the cooperation of your association and have always been glad to receive your advices. Your association presented us with a schedule of fees which have been invaluable in handling this phase of the Act.

There are two reports which the Commission desires of the physician attending the employee. First is our form No. 13, called for convenience the Surgeon's Report. As I have remarked, this is a standard form and gives in the majority of cases all information necessary for the complete handling of a case by the Commission from a compensation standpoint. It is a valuable source of information in checking both insurance carrier and employee. Second, there is our form No. 14, the Doctor's Bill and Certificate of Termination of Disability. This form, too, is invaluable in administering the Act since it gives the physician's estimate of the duration of disability.

The forms are properly obtainable from the employer of the injured, who is supposed to be furnished with an adequate supply by its Insurance Carrier. Each form should be completed in triplicate where you desire to retain one and the duplicates given to the employer or mailed to the Insurance carrier whose address is obtainable from the employer.

The Insurance Carrier retains a copy of these forms and mails on to the Commission a copy.

In this connection I wish to remark on the procedure by the Commission for handling the approval of these bills. All bills in the amount of \$100.00 or less stand approved in the amount submitted subject to acceptance and payment by the Insurance Carrier. Where there is a

difference with the Carrier over the amount of the bill, the Insurance Carrier is to refer the bill back to the physician for arbitration. If they agree as to a proper fee, the Carrier is to make payment, advising the Commission of the amount and date paid. If arbitration is unsuccessful, either party has the right to appeal to the Commission to set a fee.

With reference to bills in amount above \$100.00 the Commission approves same direct.

As requested by your Association the Commission has not at any time considered this schedule submitted by you official. It has been used as intended, a guide and a reference work.

An official schedule would of course have to take into consideration the factors provided in the section measuring the extent of the employers' or carriers' liability, and the principle upon which the cost of insurance coverage is based. The result would be a schedule providing fees in amounts less than what the profession is accustomed to charge in private practice. I believe the circulation of such a schedule would develop trouble in your private practice and unintentionally there might result to a certain degree regulation of your profession which would appear to me undesirable.

The Commission has always been delighted to confer with your representatives and will at all times give its serious consideration to any suggestions they have to offer, and will appreciate the continuance of your cooperation in giving it advice from time to time whenever the occasion arises.

AMOEBIC ABSCESS OF THE LIVER

By

J. R. YOUNG, M.D.

and

LOUIS J. BRISTOW, M.D.
Anderson, S. C.

Abscess of the liver is the most common complication of amoebiasis. This is a review of cases of amoebic abscess of the liver that have been admitted to the Anderson County Hospital, a general hospital serving about 100,000 people, of whom about 70,000 are white and

30,000 colored. There have been twenty-five* such cases during the last 34,994 admissions, an incidence of .07 per cent. During this same period there have been sixty-seven cases of primary liver pathology such as cirrhosis, acute yellow atrophy, etc. Of this number there have been thirty cases of liver abscesses, of which twenty-five were amoebic in origin. In other words, of the cases admitted for primary liver pathology 37 per cent or one in three had amoebic abscess.

As has been repeatedly emphasized by various authors, infestation with the amoeba is not rare; in fact, Craig is of the opinion that approximately 10 per cent of the people of this country harbor the parasites. In the laboratory of our hospital about 4 per cent of the routine stools show the amoeba.

In this series a past history suggestive of amoebiasis was obtained in only thirteen cases, and only six cases had a diarrhea on admission to the hospital. The relatively high incidence of individuals who have an amoebic abscess of the liver with no antecedent history of a dysentery has been noted many times and is explained by the fact that slight amoebic infections limited to the right half of the bowel may produce no diarrhea, while the same degree of infection in the left half may produce symptoms; and the nearer the rectum is approached by the infection, the more pronounced are the symptoms produced. It is to be noted that only five cases had received emetin previous to the present illness. If used oftener, amoebic abscesses would be less.

There were twenty males and five females in this series, of whom twenty-one were white and four colored. The oldest was sixty-four years old, the youngest seventeen, with an average age of thirty-seven and seven-tenths years. From the histories as near as could be determined, the average duration of symptoms was twenty-one plus weeks, the extremes being eighteen months for the longest and two weeks for the shortest. Only five had had symptoms referable to the liver for a month or less on entrance to the hospital.

From the operated cases it was determined that the right lobe of the liver was involved in

Read before the South Carolina Medical Association, Columbia, S. C., April 14, 1937.

*Fifteen of these cases were reported in 1934 by Dr. J. R. Young. (Southern Surgeon).

fourteen cases, the left lobe in three, and multiple abscesses scattered throughout both lobes in one. The reason the right side is so frequently affected is, (1) the right lobe comprises the major portion of the liver, and (2) it has been shown that the majority of the return blood flow from the colon is carried to the right lobe.

In reviewing the symptoms as presented, pain and/or tenderness in the region of the liver and fever was present in all cases. Also in all cases where a statement was made, an enlarged liver was noted. The skin was noted as muddy, dirty yellow color in sixteen cases or 64 per cent. This group of symptoms, pain in the upper right quadrant associated with an enlarged tender liver and a sallow, muddy skin, should make one suspicious of amoebic hepatitis whether or not the patient gives a history of a past diarrhea.

The other most frequently noted symptoms were loss of weight and vomiting, each being present in fifteen cases (60%). Chills were noted in thirteen cases (52%) and sweats in ten or (40%). Seven patients gave the history of having pain in the right shoulder, and in one it was his chief complaint, having lost his job because of his inability to raise his arm. This symptom we consider of diagnostic importance and believe could have been elicited in more patients if there had been closer questioning.

All of these patients had a secondary anemia, the red cell counts varying from 4,000,000 with a 90 per cent hemoglobin to 1,200,000 and a hemoglobin of 20 per cent, the average being 3,120,000 red cells and 60.7 per cent hemoglobin. The white blood counts likewise varied from 30,000 with 97 per cent neutrophils to 3,200 and 60 per cent neutrophils, the averages being 14,000 total leukocytes and 76 per cent neutrophils. The high total count and the comparatively low neutrophilic count has been noted by other observers and is considered characteristic of this disease. Stool examinations are helpful only when positive, and a negative stool by no means rules out amoebiasis. A positive stool must be weighed with the fact that 4 per cent (in our section) of the routine stools contain the amoebic cysts.

The X-ray furnishes us with one of our most important and reliable diagnostic aids, espe-

cially fluoroscopy, where elevation and fixation of the right leaf of the diaphragm is a constant occurrence. A positive X-ray picture was present in all our cases in which it was applied.

The treatment of amoebic abscess of the liver consists of (1) specific therapy, (2) closed drainage (aspiration), or (3) open drainage, or a combination of these methods. As soon as the diagnosis is made or strongly suspected, 1 gr. of emetin daily for six to ten days is given. We have had 4 cases relieved by this alone. If the patient is not relieved, the abscess should be emptied by aspiration. We have had one case entirely relieved by this method. If aspiration is not done or is not successful, open drainage of abscess by transpleural or abdominal approach is indicated, depending on where abscess is "pointing." If the right lobe of the liver is markedly bulged and fixed upwards—as is usually the case, the right transpleural approach is the most logical. If the right or left lobe is greatly enlarged downwards, the abdominal approach is most direct. No matter what method of drainage is used, emetin should be given every case of liver abscess.

DISCUSSION

Dr. Bristow, Anderson:

I will just say a word, gentlemen. I want to emphasize the fact that these patients do not have to have a history of diarrhea or dysentery to have amoebic hepatitis. We find, at the Anderson County Hospital, that about four or five per cent of the stools, on the routine examination, contain amoebae or contain amoebic cysts. That does not mean that all of these patients will give you a history of diarrhea or a history suggestive of amoebiasis. If the amoebiasis is limited to the right half of the colon, you may never get a diarrhea. It is only as the infection approaches the sigmoid or the rectum that you will get symptoms. Only if there is a proctitis will you get the tenesmus reported in the text books as significant of amoebiasis.

Dr. George H. Bunch, Columbia:

I wish to commend Dr. Young and Dr. Bristow for the scientific study of their cases. I think that it is an unusually large series of a tropical disease to have come from a comparatively small city in the Piedmont section of South Carolina. I wish to compliment them upon the admirable results. I know of no series with a lower mortality. I think it is a credit to the work done in Anderson.

This is no new disease in this section. Marion Sims recorded a hundred years ago, before the days of anesthesia, having successfully operated upon, in a farmhouse in Alabama, a case of amoebic abscess

of the liver. The recent outbreak of amoebic infection during the World's Fair in Chicago has forcibly proved that this infection does not necessarily have to occur in the tropics. It certainly has occurred as far north as Chicago. It is interesting to know that Craig, in a study of fifty thousand people, has found that about ten per cent harbor amoebae in the colon. He estimates that five per cent of the people in the United States have amoebic infection.

The manifestations of amoebic abscess are briefly, as enumerated by Dr. Young: a persistently enlarged liver; tenderness of the liver; pain in the upper abdomen, typically referred to the right shoulder; fever, not necessarily high; leucocytosis, with a proportionately high straight count. X-ray examination is important. There is typically a high, fixed right dome of the diaphragm. Obtaining amoebae from the stools is most suggestive. Positive proof of abscess, however, is getting the so-called chocolate-sauce fluid by aspiration of the liver. An amoebic abscess is usually sterile; but aspiration should not be done except in the operating room, because there is no certainty that it is sterile. While the needle is still in place the pus should be examined for pathogenic bacteria. If they are present, open drainage should be done, because it gives the patient a better chance for recovery. If not found, as much pus as possible should be withdrawn through the needle, and emetin therapy given. The needle should, if possible, be inserted so that it does not go through the free peritoneal cavity or through the free pleural cavity.

The mortality in the cases operated upon has been, in most series, from thirty to forty per cent. Under emetin therapy the mortality has been from five to ten per cent. Dr. Young did not have any. I congratulate him.

Why most of these people do not have a preceding history of diarrhea is that when diarrhea is present, it calls attention to the presence of amoebic disease, proper therapy is instituted, and the patient recovers before the liver is involved. If the patient spits up brown liver pus, it shows that the abscess has ruptured through the diaphragm and is discharging through a bronchial fistula. Emetin is again the treatment of choice.

Dr. Ochsner states that, in his opinion, the most common complication of amoebiasis is appendicitis. He says that the infection may cause acute suppurative appendicitis and that in his experience the amoebae may be found in the stools of 10 per cent of the chronic cases. The practical application of this is that amoebic infection must be considered and looked for in every case of obscure abdominal disease.

I thank you.

Dr. George T. Tyler, Greenville:

Dr. Young has presented a most interesting and fascinating subject. His series of cases is, I think, an

unusual one. There is one thing he said, however, to which I want to take exception, and that is that the diagnosis is not difficult. Sometimes, I think, it is very difficult. I recall one patient who came under my care with the onset of chill, fever, pain in the abdomen; no nausea. We watched that patient for some time. We suspected liver abscess; we made X-ray examinations; we aspirated—stuck needles all over; and we could not find an abscess. The patient came to autopsy. He was a man of enormous build—one of these very deep chests. There was an abscess in the dome of the liver, beneath the diaphragm. We had not been able to reach it. In that case, unfortunately, I did nearly everything except examine the stools; I did not do that. The amoebae might have been found there.

The fact that the diaphragm is high, on X-ray examination, does not mean liver or subphrenic abscess. The important feature, as has been mentioned, is that it be fixed. The X-ray men are very particular in their examination of these patients. They do not depend upon the anteroposterior view solely; they depend upon the fluoroscopic view, with change in position of the patient. They also demand that a lateral view be taken, and I think those features are very important.

You can hardly discuss the subject of amoebic abscess of the liver without speaking of amoebiasis. Although Dr. Young specifically confined his paper to amoebic abscess, we must deal with amoebiasis as preceding it. A few years ago two New Jersey physicians crystallized our thoughts very clearly. They said we must not think that these patients go to the tropics; the tropics have come to them. And that is exactly what has happened. We have such rapid transportation that within thirty-six hours after fruit and vegetables leave Florida they can be on our tables. The amoeba does not die within that short time. Another thing; there are supposed to be a large number of carriers, as has been brought out in the discussion, and that is true. I want to remind you of a saying of Dr. C. F. Craig's, of whom you all know. He says there are no healthy carriers. These patients do have symptoms—sometimes very obscure, sometimes hard to recognize; and only persistent and repeated examination will bring out the presence of amoebae.

As to the treatment in these cases that have come under my care, I have aspirated—always in the operating room, to be sure, and later, have drained them. I have not attempted treatment by non-operative methods. I am very glad indeed that that method has been attended with such satisfactory results. I shall certainly, in the future, make use of that method first, and later, if necessary, employ the more radical procedure.

I think this is an excellent paper.

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OF THE

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JULY, 1937

THE A. M. A. MEETING AT ATLANTIC CITY. SOUTH CAROLINA DELEGATION HONORED

From the statistics of the recent meeting of the American Medical Association, June 7-11, it would appear that Atlantic City is the ideal place from every standpoint. Approximately ten thousand doctors attended the meeting, and it is within the bounds of reason to assume that

five thousand additional persons, including the Woman's Auxiliary and allied organizations of medicine, were present. This would appear to be the largest gathering of its kind ever held in the history of the world. In many respects the meeting was an epoch, particularly the deliberations of the House of Delegates.

As was widely heralded through the public press, two questions stood out in significant proportions to the other matters considered. First was the action taken on resolutions sent down from the New York State Medical Association embodying a plan whereby the Federal Government might enlarge its activities in the care of the sick and in the prevention of disease, and the second was the report of the special committee on the study of contraceptives. Both of these problems were considered in executive sessions, and the final report of the special committee on executive session was adopted unanimously. The essence of the conclusion of the first proposition was to the effect that the American Medical Association stands ready now, just as it has always done, to co-operate with the Federal Government in working out satisfactory plans for the care of the sick of this country. This position of the Association has been repeatedly stated, and it is now reiterated and reemphasized. At the executive session the House of Delegates had the benefit of an address by Senator J. Ham Lewis of Illinois. The other problem discussed and passed upon was as to the attitude the American Medical Association should take on contraceptives. For the first time the Association declared in favor of clinics properly controlled and under due legal restrictions. The House of Delegates authorized a further study by the Bureaus of the Association most concerned of the various methods now in use or proposed.

One of the decisions of the House of Delegates was to authorize the organization of a Bureau of Industrial Medicine. This is an important step due to the great increase of industrialization in this country.

The House further clarified the definition of contract-practice.

South Carolina came in for a goodly share of recognition. Dr. J. H. Cannon, of Charleston, rendered yeoman service on the epoch making special committee of the Executive Session of

the House of Delegates. The senior delegate, Dr. Edgar A. Hines, of Seneca, with others, was placed on the Honor Roll by the Speaker of the House, Dr. N. B. Van Etten, of New York, with the following words:

"Although the complexion of the House of Delegates changes from year to year, there are fortunately a sufficient number of seasoned members to guarantee continuity of experience. The lessons of the past may wisely check ill-considered action without strangling vitality.

"Thirty-six of the delegates elected to this House began their services fifteen or more years ago, and eleven delegates began their activities in this department of organized medicine twenty-five or more years ago. The service of these delegates has not in every instance been continuous, but their presence at this session is evidence of the high esteem in which they are held in their home states. Their long and distinguished service has materially strengthened the respect in which the House of Delegates is held by American physicians. While all these delegates deserve commendation, it seems fitting that eleven of them should be placed on an Honor Roll today.

"For the purpose of identifying them to the new members, I would like them to rise for a moment as their names are called.

"Dr. Thomas S. Cullen, Maryland, attended his first session in 1902 and is now attending his thirtieth session; he is dean in point of attendance.

"Dr. George P. Johnston, Wyoming, first came to the House in 1903 and is serving his thirteenth session.

"Dr. Edward H. Cary, Texas, attended his first session in 1906. He has been seventeen times a delegate, attended four other sessions as a Trustee, one as President-Elect, and one as President, and is now starting his twenty fourth session.

"Dr. Arthur T. McCormack, Kentucky, attended his first session in 1908 and begins his twenty-fifth session today.

"Dr. Edgar A. Hines, South Carolina, attended his first session in 1910 and enters on his twenty-eighth session this morning.

"Dr. Roger I. Lee, Massachusetts, attended his first session in 1911 and is now serving his twelfth session.

"Dr. Arthur C. Morgan, Pennsylvania, began his service in 1911 and is now attending his eleventh session.

Dr. Ben R. McClellan, Ohio, also began his service in 1911 and is now serving at his twenty-fourth session.

Dr. Grant C. Madill, New York, attended his first session in 1912 and begins his eighteenth session today.

"Dr. William D. Johnson, New York, also came the first time in 1912 and begins his eighth session today.

"Dr. Holman Taylor, Texas, also belongs to the class of 1912 and has regaled the House with wit and wisdom for twenty-two sessions.

"There are five other men who deserve special medals with palms for consecutive, uninterrupted service for more than twenty years, exemplars of extraordinary appreciation of their value to organized medicine. I should like them to rise also. They are: Dr. J. H. J. Upham, Ohio, whose twenty-four sessions have not been interrupted; Dr. Charles J. Whalen, Illinois, whose twenty-three sessions have had no interruption; Dr. Rock Sleyster, Wisconsin, whose twenty-three sessions have had no interruption; Dr. J. D. Brook, Michigan, who is here for his twenty-second session, and Dr. Arthur J. Bedell, New York, who now enters his twenty-first session.

"Having identified the veterans, I would like to introduce seventeen men who are here for the first time. Will they please rise as their names are called?

Arkansas—William H. Mock

California—Robert A. Peers

Delaware—Stanley Worden

Illinois—E. S. Hamilton

Kentucky—E. L. Henderson

Massachusetts—Walter A. Lane

Michigan—T. R. K. Gruber

New Jersey—Blase Cole

New York—James H. Borrell

New York—Thomas H. Cunningham

Vermont—A. B. Soule, Jr.

Washington—Raymond L. Zech

Wisconsin—Gunnar Gundersen

Alaska—Noble Dick

Philippine Islands—Frederick W. Meyer

Puerto Rico—Ramon M. Suarez

United States Army—Robert E. Stoope

"To you, gentlemen, the Speaker extends the right hand of fellowship and asks your active participation in all discussions. I trust that a Thomas Cullen and an Edward Cary and an Edgar Hines may be found among you and that you may be returned from your states to break all records."

In this connection it may be said that South Carolina is in a stronger position in the National House of Delegates than ever before because of the coming to the House last year of Dr. William Weston, Sr., of Columbia who represents the Section on Pediatrics.

The roll of members of the South Carolina Medical Association as reported by the Secretary of the A. M. A. numbered 874. Since more than five hundred of our members now receive the Journal of the American Medical Association, the full details of the Atlantic City session will be available to them. From time to time we propose to discuss the various activities of the A. M. A. and thus undertake to give all of our members at least a digest of the more important activities of the parent organization.

It would be far beyond the scope of this editorial to undertake to present even a brief resume of the scientific activities at Atlantic City. They were extraordinary in their magnitude. It was estimated that about seven thousand saw the new picture on Syphilis Control, a campaign in which we are now intensely active. Two of our members were on the scientific program, Dr. Kenneth M. Lynch, of Charleston, and Dr. Robert Wilson, of Charleston.

The attendance from South Carolina was very fine, and we present the names of most of the physicians who were there:

Dr. J. H. Cannon, Charleston
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FROM THE PRESIDENT OF THE SOUTH CAROLINA MEDICAL AUXILIARY

To the Members of the Auxiliary:

In my first message to you it gives me real joy to extend to you a most cordial greeting and assurance of my love and affection for you.

I want to thank the members of the South Carolina Medical Auxiliary for the confidence reposed in me by electing me to the highest office within the gift of the membership. I appreciate this honor and pledge to you my whole hearted zeal and loyalty to service.

The Medical Auxiliary is one of our country's most important club groups. Beginning with the American Medical Association, the State and County Groups cover an area so large that the gospel of fellowship and service to humanity reaches the home of the lowly with loving interest.

We can conceive of no greater privilege than to be a member of this wonderful organization. We rejoice that we are doctors' wives and that we have been given the opportunity to be allied with them in a definitely constructed program. Let us not be unmindful of the special privileges

which we can enjoy by assisting our husbands in the service of humanity. This is indeed The Era of Service. Enlightenment in the field of science causes us to be searching for "new ideas and new ways to make our ideals workable."

A prideful endeavor of our State Auxiliary is to emphasize the educational advantages offered our young people through the Student Loan Fund. To help give medical training to boys and girls is a glorious privilege to be appreciated. Let us remember to increase our contributions to this worthy objective.

The Historical Department occupies a most important place in our Auxiliary Program. Biographies, histories, and photographs of pioneer physicians and surgeons should be collected, together with the life histories of our own husbands. What more fitting tribute could our organization pay these noble men than to preserve in the archives of our History Department chronicles like these?

The Jane Todd Crawford Memorial Fund memorializes the efforts of a brave woman who contributed so much to medicine that her heroism caused recognition with honor and reverence. Remember this cause in your Auxiliary Budget.

The Public Relations Chairmen are urged to increase interest by lectures supporting Medical Activities. These speakers must be approved by the Medical Profession. The aims of the organization are not known to the public generally, but much information can be obtained from the radio health broadcasts and also affiliation with other clubs. The doctor's wife can always be on the watch for propaganda antagonistic to the medical profession.

We can accomplish a great deal by becoming a reserve force acting in the best interests of the doctors; by passing on to lay groups the viewpoint of the medical profession, and by educating ourselves and others along health lines.

Each Auxiliary member should consider herself as belonging to the Hygeia Committee and help to place this magazine before the public. I want to urge each member to get at least one Hygeia subscription this year.

We wish to share our enthusiasm and interest in the privileges of membership. Let us labor to enlist those who have not as yet joined our Auxiliaries, for in unity there is strength. Increased membership would strengthen the splendid work of this organization and further aid in the achievement of our objectives for 1937-38.

Each individual member is responsible for the growth and progress of our Auxiliaries. We plead for your cooperation and encouragement in the work we have undertaken.

Call on me if I can be of service to you at any time. With best wishes for a happy, successful Auxiliary Year.

Mrs. Jesse Willson.

CONGRATULATIONS TO SOUTH CAROLINA!

It is my great pleasure to announce that Mrs. T. R. W. Wilson of Greenville has been elected Recording Secretary of the Woman's Auxiliary to the American Medical Association. We are very proud that South Carolina has been honored by this recognition of one of our most valuable members.

Mrs. Jesse Willson.

MEETING WOMAN'S AUXILIARY TO THE S. C. MEDICAL ASSOCIATION, COLUMBIA, S. C., APRIL 13-15, 1937

The Twelfth Annual Convention of the Woman's Auxiliary to the South Carolina Medical Association was held in Hotel Columbia, Columbia, S. C., April 13-15, 1937. Mrs. T. R. W. Wilson, of Greenville, the President, called the meeting to order. The convention was well attended by representatives from the various auxiliaries. Reports were given by the officers, councilors, and county presidents. Dr. J. W. Jackson, pastor of the First Presbyterian Church, Columbia, led the convention invocation. Mrs. W. C. Abel, of the Columbia Auxiliary, gave the address of welcome. Dr. Walter Bristow, of Columbia, brought greetings from the Columbia Medical Society. Dr. E. A. Hines, of Seneca, brought greetings from the

Advisory Council of which he is Chairman. Dr. R. C. Bruce, of Greenville, the retiring President of the S. C. Medical Association, was presented. Mrs. Wm. R. Dancy, of Savannah, President of the Georgia Auxiliary, was presented. Mrs. W. P. Timmerman, of Batesburg, conducted the memorial service. Mrs. R. L. Lane, of Columbia, sang two lovely solos. Interesting addresses were given by Mrs. Robert Fitzgerald, of Wauwatosa, Wisconsin, President of the Woman's Auxiliary of the American Medical Association, and by Mrs. Frank N. Haggard of San Antonio, Texas, President of the Woman's Auxiliary to the Southern Medical Association. The history trophy, given by Mrs. Frank Strait of Rock Hill, was presented by Mrs. H. M. Stuckey, of Sumter, to the Ridge Medical Auxiliary. The scrap book trophy given by Mrs. T. R. W. Wilson, of Greenville, was presented to the Greenville County Auxiliary.

A number of delightful social functions had been arranged by the Columbia Auxiliary for the pleasure and entertainment of the delegates. The first of these was a delicious luncheon in Hotel Columbia. The tables were centered with deep red buds of dogwood blossoms, and sprays of dogwood adorned the windows, which were hung with red draperies. A lovely tea was given at the beautiful home of Mrs. I. Jenkins Mikell on Edisto Avenue. A most enjoyable auto ride was the closing feature of the convention, the tour being made of various points of interest and to some of the most beautiful gardens in the city. The luncheon and little spell of rest at Mrs. Allison's were enjoyed. Everyone left giving elaborate praise to the women of the Columbia Auxiliary for their lovely hospitality.

The following officers were installed: President, Mrs. Jesse Willson, Spartanburg; President Elect, Mrs. C. C. Ariail, Greenville; First Vice President, Mrs. P. M. Temple, Spartanburg; Second Vice President, Mrs. W. B. Furman, Easley; Recording Secretary, Mrs. T. R. W. Wilson, Greenville; Treasurer, Mrs. Dennis Hill, Pacolet; Publicity Secretary, Mrs. E. C. Ridgell, Batesburg; Parliamentarian, Mrs. Wm. C. Abel, Columbia.

Mrs. E. C. Ridgell, Publicity Secy.

S. C. AUXILIARY EXHIBIT AT MEETING OF AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 6, 7, 8, 1937

The Auxiliary to the American Medical Association met in Atlantic City, June 6, 7, and 8. The meeting was presided over by the President, Mrs. Robert E. Fitzgerald, of Milwaukee, Wisconsin, whom many South Carolinians had the pleasure of hearing speak and knowing personally at the recent convention of the State Auxiliary held in Columbia.

Of special interest this year was the exhibit which South Carolina had for the first time in the archives department of the convention. Mrs. Clarence E. Owens, of Columbia, was in charge of this exhibit. It was recognized at a glance as having come from South Carolina, for it was a book in the form of a Palmetto tree, three feet high, containing the history of the South Carolina Auxiliary and greetings from the Palmetto state. On the back of the book was a reproduction of the Sims monument on the State House grounds, which memorial was erected mainly through the efforts of the South Carolina Auxiliary. The national chairman in

charge of exhibits was Mrs. Ily R. Beir, of Atlantic City. Exhibits came from every state in the Union.

GREENVILLE AUXILIARY MEETING

Mrs. Mordecai Nachman was hostess Monday afternoon, June 7, to the Auxiliary to the Greenville County Medical Society at her home on East Hillcrest Drive. Mrs. W. W. Edwards was assistant hostess.

Five new members were admitted at the meeting. A report on the State Convention in Columbia was given by Mrs. J. G. Murray. The program for the afternoon consisted of three varied papers. Mrs. W. H. Powe, historian, read the lives of Dr. John Maxwell, who practiced in Greenville from 1876 to 1915, and Dr. H. R. Rutledge, who practiced for many years prior to his death in 1915. Mrs. V. P. Bell read an article from "Hygeia." Mrs. L. O. Mauldin read a paper on "Outstanding Personalities in the Medical Field."

The five new members were guests of honor during the social period which followed the program.

SPARTANBURG COUNTY MEDICAL SOCIETY HONORS THREE MEMBERS WHO HAVE PRACTISED MEDICINE FOR FIFTY YEARS

On May 31, the Spartanburg County Medical Society was entertained at the Spartanburg Country Club, with a supper in honor of the half-century members who had practiced for fifty years. The honorees were Dr. Lewis J. Blake, Dr. James L. Jefferies and Dr. J. J. Lindsay, all of Spartanburg.

Dr. Roy Finney, President of the Medical Society, was host and presided over the meeting.

The local speakers of the evening were Mr. W. P. Conyers, Dr. D. L. Smith, Sr., and Mayor-elect T. W. Woodworth.

The guest speaker of the evening, Dr. J. M. Northington of Charlotte, N. C., rendered the principal speech, in which he outlined the progress that medicine has made since our three honorees began to practice the "healing art." Dr. Northington demonstrated how much our armament against disease has been increased within the last fifty years. He also congratulated the three doctors on the part they have played in our medical world.

The three honorees expressed their appreciation in short replies during the closing of the meeting.

Dr. W. D. Hope, of Lockhart, who also has practiced medicine for fifty years, was a guest of the society. The meeting was attended by about 100 men and was very much enjoyed.

D. L. Smith, Jr., Secretary.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT No. 337 (35451)

Case of Dr. W. A. Smith

March 5, 1937

A 44 year old negress, domestic, admitted 9-22-36, died 9-25-36.

History: Apparent onset suddenly the night before admission with severe headache, followed by vomiting, which continued all night. Got up on the day of admission and went to work, although still complaining of headache. At about 1:30 PM she fell unconscious while at work and was brought to the hospital in coma. Had been sick for several months with pain in the epigastrium. Further history not obtained. (Informant: daughter).

Examination: Temp. 102.2, pulse 68, resp. 18, BP 190/130 in left arm, 130/80 in right. Well developed negress. Right pupil dilated, does not react to light, left pupil small, reacts sluggishly. Teeth foul. Neck: "Pulsations in neck. Thyroid not palpable. No stiffness." Chest: Few rales in bases of both lungs, no other findings. Mediastinum: "Some widening." Heart: Apex in 6th interspace 4 1-2 inches from midline. To-and-fro murmur at apex found by one examiner, simple systolic murmur at the base by another. Heart regular in rhythm. Abdomen soft, no tenderness or masses noted. Reflexes: deep reflexes equal on two sides, possibly slightly increased. Questionable clonus, first on one side and then on the other. "No difference in the flaccidity on the two sides," recorded by one observer, but the first observer noted no paralysis. Eyegrounds: Numerous fresh hemorrhages, some quite large, especially on right; veins very dilated and tortuous, arteries narrowed.

Laboratory: Urine (9-23-36) Sp. Gr. 1.006, alb 3 plus, sugar, acetone and casts neg. Blood (9-23) Hb. 75 per cent, WBC 9,900, polys 96 per cent, lymphs 4 per cent. Blood Kolmer and Kline 4 plus. Urea N. (9-24) 21 mgs. Spinal Fluid: (9-22, 23 and 24) bloody fluid under increased pressure (Examination of fluid not recorded).

Course: Temp. fell to normal the evening of admission, rose to 100.6(R) that night, fell to normal again; rose slightly again before death. Pulse 60-82, resp. 16-26. On 9-23 patient was sitting up but then suddenly fell back, unconscious, after having been partly conscious for a few hours. No further change in condition noted. Died 9-25-36 at 1:35 AM.

Dr. Robert Wilson, Jr. (Conducting): Mr. Crosland, how do you summarize this case?

Student Crosland: From the history of sudden onset with severe headache, vomiting and collapse we must suspect cerebral accident. In the physical ex-

amination, the inequality of the blood pressure readings in the two arms and the widening of the mediastinum make one suspicious of aortic aneurysm. The fact that the right pupil was dilated also suggests aneurysm. The enlarged heart and the elevated blood pressure also cause a suspicion of hypertensive cardiovascular disease. The neurological examination is somewhat confusing because of the variability of the reflexes and the question of paralysis. The eyeground examination is that of increased intracranial pressure, which would go well with cerebral accident.

Among the laboratory data, we find a large amount of albumin in the urine; in the absence of casts and with a low specific gravity, I am not convinced of the presence of kidney disease, especially since only one specimen of urine was examined. The polymorphonuclear leukocytes seem to be unusually high for a case of cerebral accident. The spinal fluid was bloody and under increased pressure, which further corroborate the idea of cerebral accident. I understand that in a case of cerebral accident the pupils can do almost anything: constrict, dilate, or remain normal. I can sum up my idea of the case as probable hypertensive cardio-vascular disease, cerebral accident and syphilis, with syphilitic aneurysm of the aorta likely.

Dr. Wilson: Isn't the variability of the pupils in different cases to be explained by a difference in location of the lesion in the brain? How do you localize this lesion?

Student Crosland: I can't localize it from the abstract.

Dr. Wilson: You mentioned thoracic aneurysm; where do you think this aneurysm is?

Student Crosland: Well, when the blood pressure is different in the two arms because of aneurysm, it is usually lower on the side on which the aneurysm lies, because the difference is to be explained by a compression of the arteries to that side by the aneurysmal mass. Hence in this case I think it must be on the right, and therefore probably in the innominate artery. Other mediastinal tumors could also give this difference in blood pressure, but with a positive Kolmer and Kline, I believe that aneurysm is more likely.

Dr. Wilson: Mr. Ryan, do you agree with the diagnosis of cerebral hemorrhage, and if so, can you localize it?

Student Ryan: The spinal fluid was bloody, and the neurological findings are those of a general increase in intracranial pressure, without definite localization. Hence I believe it was a subarachnoid hemorrhage. And I would explain the dilated pupil on the right side on the basis of an aneurysm of the

right side of the thorax, probably of the innominate artery, which compresses the cervical sympathetic chain.

Dr. Wilson: Mr. Ryan, how do you explain the vomiting?

Student Ryan: It is very probably an irritation of nerve supply.

Dr. Wilson: What nerve supply?

Student Ryan: I don't know.

Dr. Wilson: Mr. Carnes, how do you explain the vomiting?

Student Carnes: Increased intracranial pressure is probably the cause of the vomiting, and of the slow pulse when compared to the temperature.

Dr. Wilson: What is your diagnosis, Mr. Carnes?

Student Carnes: Subarachnoid cerebral hemorrhage.

Dr. Wilson: What do you think was the pathological background for the cerebral hemorrhage?

Student Carnes: She may have had an arteriosclerosis with hypertension or a chronic nephritis with hypertension. Having syphilis, and an aneurysm of the thoracic aorta, it is possible that she also had an aneurysmal dilatation of the cerebral vessels, which might rupture to give subarachnoid hemorrhage.

Dr. Wilson: How can you determine paralysis in a comatose patient?

Student Carnes: You can test the limbs for flaccidity or spasticity, and you can test the reflexes.

Dr. Wilson: Yes, but you can't really determine if a patient is paralysed when he is in coma. In such a case the reflexes can neither prove or disprove paralysis. Usually the reflexes are completely absent in coma.

Mr. Halsey, do you agree with the diagnosis?

Student Halsey: Yes, generally. I don't believe reflexes are of much value in cases of deep coma. The bloody spinal fluid could come from either subarachnoid or intraventricular hemorrhage.

Dr. Wilson: Do you think the pupillary changes can be explained on a basis of some lesion in the region of the third nerve nucleus?

Student Halsey: I believe that cerebral aneurysm is a possibility in one of this age. This may be the result of a congenital defect in the development of the cerebral vessels, a result of syphilis, or a result of a mycotic aneurysm from a bacterial endocarditis.

Dr. Wilson: What do you think is the most likely background for the hemorrhage in this case?

Student Halsey: Probably either a congenital aneurysm or an atheroma of arteriosclerosis. Syphilis seldom causes cerebral aneurysms.

Dr. Wilson: Mr. Ravenel, how do you explain the to-and-fro murmur?

Student Ravenel: One examiner found a to-and-fro murmur, another found simply a systolic murmur. This makes it hard to interpret the findings. I believe that the patient had a syphilitic aneurysm of the innominate artery, and that this could account for a systolic murmur at the base of the heart.

Dr. Wilson: Mr. Crosland seems to think that the poly count is very high for cerebral hemorrhage. What do you think, Mr. Ravenel?

Student Ravenel: I can't explain it, but I believe that the count could easily rise that much in a day.

Dr. Lynch: This is a case of rupture of a small aneurysm of the circle of Willis. Rupture of such an aneurysm is a fairly common cause of subarachnoid hemorrhage, but they are very difficult to find at autopsy because they are so buried in the hemorrhage. Dr. Wood found this one after making special search for it. There is a small, torn, sac-like structure of the anterior communicating artery of the circle of Willis. Such aneurysms are supposed to develop at the point of bifurcation of the cerebral arteries, where there is thought to be a congenital weakness. Whether there must be additional vascular disease to permit rupture to take place, remains to be proved.

The hemorrhage in this case was strictly outside the brain proper, the blood seeping through the subarachnoid space and entering the ventricular system without damaging the brain tissue particularly. Hence there could be no definite localizing symptom.

The patient did not have an aneurysm of the aorta or other large vessels, and she had no evident disease of these vessels. I am unable to explain the difference in the blood pressure in the two arms to my own satisfaction; possibly it was due to some nervous influence of the intracranial lesion.

Probably the pupillary changes are based on the presence of the aneurysm itself in the region of the geniculate bodies; the nucleus of the oculomotor nerve lies fairly close to the location of the aneurysm in this case. If the dilatation of the pupil had been due to irritation of the cervical sympathetic chain, the pupil should still react to light, as the fibers of the oculomotor nerve and tract would still be intact. Hence in this case I believe that the pupillary abnormalities were due to the intracranial condition.

The history on this case is apparently one of recurrent hemorrhages over a brief period of time, and this is the usual story with these small aneurysms.

The hemorrhages in the eyegrounds can be explained on a general increase in intracranial pressure from the hemorrhage into the subarachnoid space.

Dr. Robert Wilson, Sr.: As to the question of the unequal blood pressure in the two arms, I am inclined to question the accuracy of the blood pressure readings. The blood pressure was apparently taken only once. Since there was no unusual pressure on the large blood vessels of the mediastinum to be found at autopsy, I think we are forced to reach this conclusion.

Dr. Lynch: There was no enlargement of the heart, and there were no valvular lesions of the heart, so the murmurs are unexplained. There was no apparent kidney disease of any consequence after both gross and microscopic examination, so the albuminuria is unexplained. I understand that albuminuria occurs frequently with subarachnoid hemorrhage, but I cannot explain its mechanism.

MINUTES

MINUTES OF THE HOUSE OF DELEGATES
OF THE SOUTH CAROLINA MEDICAL
ASSOCIATION

The House of Delegates of the South Carolina Medical Association held its regular annual meeting in the ballroom of the Jefferson Hotel, Columbia, on Tuesday evening, April 13, 1937. President R. C. Bruce, of Greenville, called the meeting to order at 8:45 o'clock.

Dr. H. L. Shaw, of Sumter, Chairman of the Committee on Credentials, reported fifty-three members of the House of Delegates in attendance. The President declared a quorum present.

President Bruce then announced the appointment of the following committees: Committee of Tellers: Drs. C. J. Lemmon, Sumter; J. S. Matthews, Denmark; and A. T. Moore, Columbia. Committee on Reference: Drs. George T. Tyler, Greenville; Thomas H. Pope, Newberry; and F. M. Routh, Columbia.

On motion of Dr. George T. Tyler, the following resolution was adopted by a rising vote: "Resolved, that the South Carolina Medical Association, through its House of Delegates, send its greeting to Dr. Julius H. Taylor, the President-Elect of the Association, and express its regret that he can not be present at this meeting."

The President presented the fraternal delegates from the Medical Association of Georgia: Dr. Wm. R. Dancy, Savannah; Dr. H. M. Michel, Augusta; and Dr. Wm. A. Mulherin, Augusta, and invited them to participate in the program.

The President then spoke as follows:

PRESIDENT BRUCE: I assure you, gentlemen, that it is a pleasure to be here with you again. I have enjoyed my year's work very much. I feel that it has been of great help to me, and I hope it has been of benefit to the Association. I have found the meetings of the district societies and the county societies thoroughly enjoyable, and I have been very kindly received and have enjoyed my visitations. The work of the various societies which I visited is of a high order, and I feel that the men of the state are putting forth better efforts than ever before in scientific medicine. It gave me very great pleasure to visit among these various societies.

The membership of our Association has shown during the last year a substantial increase, at which we are much pleased. This increase has been largely due to the fact, our Secretary tells me, that a number of the smaller societies have re-organized and are again participating in the work of the Association. And our larger societies have kept their dues better paid up, so we have a larger membership now than for several years past.

The financial affairs of the Association, as will be shown by the Secretary-Treasurer's report, are in

very good condition. There has been a substantial increase in the revenue from advertising and a moderate increase in membership dues. The detailed report will be given you later. The Association has not increased its surplus in any substantial amount, but there has been an increase in the funds on hand, due very largely to increased advertising for the year, compared with what we had for the year 1935.

The various committees reported to the Council this afternoon, and the Chairman of the Council will give you a resume of the action the Council took and the significance of these various committees and their reports.

The condition of the medical societies throughout the country at this time is such that it seems to me our financial affairs should be put in better order, and it is my pleasure and my privilege to present to you a few recommendations which have been approved by the Council this afternoon. I am going to present these in written form, and I ask the House of Delegates to make a definite disposition of these suggestions at the present time.

(The President then read the following recommendations:)

I wish to bring to the attention of the House several matters, which I feel will be of importance and to request that you take action on them at this time.

FIRST: The business coming before the House of Delegates has increased to such an extent that there is not sufficient time for the transaction of the business of the House in the evening session, a change which was made during the World War by common consent, in Chapter IV, Section 1 of the By-Laws. I recommend that we revert to the custom as provided for in this Section of the By-Laws which reads as follows:

"Section I. The House of Delegates shall meet at 10 A.M. on the day before that fixed as the first day of the Annual Session. It may adjourn from time to time if necessary, but all the regular business, including the election of officers, must be before the General Meeting, that this meeting may be arranged as a separate section of the program."

SECOND: I recommend that the committee from the Association for the Study and Control of Syphilis be made a standing committee with their term of office being staggered from 1 to 5 years.

THIRD: I recommend that the Public Relations Committee be made a permanent committee of this Association.

FOURTH: I recommend that the Legislative Committee shall confer with the Legislature in regard to an amendment to the Medical Practice Act whereby the Board of Medical Examiners of South Carolina has the power to revoke the license of any one upon proper cause being shown.

FIFTH: I recommend that the By-Laws be amended that the annual dues of the Association shall

be six dollars (\$6.00) instead of five dollars (\$5.00).

On motion of Dr. James A. Hayne, amended by Dr. W. P. Timmerman, the President's recommendations were taken up seriatim, considered, and acted upon, each one being adopted.

President Bruce called for the report of the Secretary-Treasurer, which was read by that officer. On motion of Dr. Douglas Jennings, the report was received with a vote of thanks to the Secretary-Treasurer. Dr. E. A. Hines.

The report of the Council was read by Dr. J. R. Des Portes, Chairman, and on motion was received as information.

The President stated that the report of the Board of Medical Examiners had been handed in to the Council at its meeting and is embodied in the report of the Council.

The report of the State Board of Health was read by Dr. F. M. Routh, Chairman of the Board, and was greeted with applause. On motion, the report was received as information.

Dr. J. H. Cannon read the report of the Delegates to the American Medical Association, which was ordered received as information.

The President called for the report of the Necrology Committee. This was read by Dr. Clay W. Evatt, Chairman, while all members of the House stood. The report was ordered received as information.

President Bruce next called for the reports of Special Committees. (At this point Dr. Bruce called the Chairman of the Council, Dr. Des Portes, to the chair to preside over the meeting.)

The report of the Committee on Constitution and By-laws was read by Dr. James R. Young, Chairman. Dr. Des Portes stated that the report would be received as information and acted upon under the head of new business.

Dr. R. E. Seibels, Chairman, then presented the report of the Committee on Maternal Welfare, which was received with applause.

Dr. J. Richard Allison, Chairman, read the report of the Committee on the Control of Cancer, which was also greeted with applause.

(President Bruce resumed the chair.)

The report of the Committee on Public Relations, in the absence of the Chairman, Dr. R. M. Pollitzer, was filed by the Secretary and received as information.

Dr. Roger G. Doughty, Chairman, read the report of the Committee on the Workmen's Compensation Law, which was ordered received as information.

The President stated that the report of the Committee on the Study and Control of Syphilis had been submitted to the Council by Dr. James Edward Boone, Chairman, and was covered in the report of the Council.

Dr. Carl B. Epps, Chairman, read the report of the Committee on County Boards of Health, which was ordered received as information.

New Business

The proposed amendments to the Constitution and By-laws were brought up for consideration and received lengthy discussion, the amendment providing for the creation of the office of vice-president being adopted, and the others being rejected.

The following resolution was offered by Dr. R. E. Abell and, on motion, was adopted:

"Resolved, that we, the members of the House of Delegates of the South Carolina Medical Association, appreciating the importance of thorough medical education as essential for the people of our state, and recognizing the part that the Medical College of the State of South Carolina has always played in this important role, desire to express to the General Assembly our deep appreciation of its generous attitude toward the college in its present appropriations bill.

"Resolved, further, that a copy of this resolution be sent to his Excellency the Governor, the President of the Senate, and the Speaker of the House of Representatives."

On motion of Dr. W. P. Timmerman, as amended by Dr. James A. Hayne, the Secretary was directed to write to the President of the Senate and the Speaker of the House of Representatives extending an invitation to the General Assembly to meet with the Medical Association of South Carolina on Wednesday evening, April 14th.

Dr. C. B. Epps requested that some definite action be taken on his report as Chairman of the Committee on County Boards of Health. The report was discussed and then, on motion of Dr. George Wilkinson, was tabled.

Dr. Douglass Jennings offered the following resolution, which was adopted:

"Resolved, that the Legislative Committee be directed to confer with the General Assembly with a view to securing the passage of an amendment to the Medical Practice Act empowering the Board of Medical Examiners of South Carolina to revoke the license of any person upon proper cause being shown."

Dr. W. A. Smith submitted, on behalf of the Charleston Medical Society, a motion that the President appoint a committee to gather and preserve medical historical data of South Carolina, which motion was adopted.

Secretary Hines stated that communications had been received from the Mayor and Chamber of Commerce of Spartanburg and the Spartanburg County Medical Society inviting the Association to hold its 1928 convention in that city. Dr. C. W. Bailey, of Spartanburg, moved that the invitation be accepted. Dr. Sasser moved that the 1938 meeting be held in Myrtle Beach, extending an invitation from the Horry County Society. Dr. K. M. Lynch moved, as a substitute, that the Association vote its preference, and this motion was adopted. The members then proceeded to vote, and Myrtle Beach was chosen as the place of meeting for next year.

The following resolution was offered by Dr. Floyd Rodgers and, on motion of Dr. Robert Wilson, was adopted:

"Whereas, it is a well known fact that the Medical Association of the State of South Carolina has no lawful right in the selection of the trustees of the Medical College of the State of South Carolina, but it is also well known that the welfare of the Medical College of the State of South Carolina is dear to the heart of the South Carolina Medical Association; and

"Whereas, for the well-being of the Medical College of the State of South Carolina, it is believed that some voice in the appointment of the trustees should be allowed to the South Carolina Medical Association; therefore be it

"Resolved, that prior to the election of the trustees, four of whom are elected every two years, the South Carolina Medical Association, in convention assembled, select, on the recommendation of its Board of Councilors, eight names to be submitted to the General Assembly, with recommendation as to these persons' fitness to serve as trustees on the board of this important state institution."

Being called upon by the President for a further report from the Credentials Committee, the Chairman, Dr. Shaw, reported eighty members of the House of Delegates present and entitled to vote.

Election of Officers

The President called for nominations to the office of President-Elect.

DR. RODERICK MacDONALD: I want to nominate tonight a man who has served South Carolina medicine long and faithfully. He graduated in the South Carolina class of 1900. He is able and diligent, and he has given generously of his time to this Association. He has been a member of the Council for some time and is now its chairman. He first saw the light of day in Fairfield County. I nominate Dr. J. R. Des Portes, of Fort Mill, as President-Elect.

This nomination was seconded.

DR. W. E. SIMPSON: It is said that you have to live with a man to know him. Dr. Des Portes is our neighbor, and we do not know anything bad about him. I am sure the Association will do itself an honor and the profession a great service by electing Dr. Des Portes as President-elect.

On motion, the nominations were closed and the Secretary was instructed to cast the unanimous vote of the House for Dr. Des Portes. The vote was cast, and Dr. Des Portes was declared elected.

The President called for nominations for vice-president.

DR. W. A. SMITH: I propose the name of Dr. L. M. Stokes, of Walterboro, who has recently served the Association very faithfully as a member of the Board of Medical Examiners. I think you all know his value as a member of that Board.

Dr. W. P. Timmerman nominated Dr. C. B. Epps, of Sumter.

Voting proceeded by ballot, and Dr. Stokes was elected as Vice-President.

DR. J. R. DES PORTES: Gentlemen, I want to thank you, each and every one, for the honor you have given me tonight; and I hope I shall live to carry out the business of the Association to the best of my ability. I want to ask you each to appoint himself a committee of one to help me in this work. It is a pleasure to be associated with you men, and I hope that when the end of my term comes each one of you may be able to say that I have done my best. (Applause.)

Dr. E. A. Hines was nominated to succeed himself as Secretary-Treasurer, the nomination receiving several seconds. On motion, the nominations were closed and the President was instructed to cast the unanimous vote of the Association for Dr. Hines.

PRESIDENT BRUCE: Dr. Hines, it gives me great pleasure to cast the unanimous ballot of the South Carolina Medical Association for your re-election as Secretary-Treasurer, and I declare you elected.

DR. E. A. HINES: Gentlemen, I certainly appreciate this splendid vote, and I shall try to do better than I have ever done before. (Applause.)

The following Councilors were unanimously elected:

First District—Dr. F. G. Cain, Charleston.

Third District—Dr. J. D. Harrison, Greenwood.

Fifth District—Dr. Roderick MacDonald, Rock Hill.

Seventh District—Dr. E. T. Kelley, Kingstree.

On nomination of Dr. W. A. Smith, Dr. Daniel L. Maguire, of Charleston, was elected a member of the Board of Medical Examiners for the First Congressional District. On nomination of Dr. Morgan, Dr. C. H. Blake, of Greenwood, was elected as member for the Third District.

On nomination of Dr. Smith, seconded by Dr. Anderson, Dr. J. D. Cuess, of Greenville, was elected as a member of the State Board for Examination and Registration of Nurses, to succeed himself.

No further business appearing, the House of Delegates, at twelve o'clock midnight, adjourned *sine die*.

REPORT OF SECRETARY-TREASURER

E. A. Hines, M.D., Seneca, S. C.

Statement of Receipts and Disbursements South
Carolina Medical Association, For Year Ending
December 31st, 1936

Receipts

Balance in Banks Jan. 1st, 1936		
Defunct Seneca Bank -----	\$	269.34
S. C. National Bank -----		942.34
Postal Savings -----		1,000.00
		<hr/>
		2,211.68
Membership Dues		
1935 -----		69.00
1936 -----		1,965.00
		<hr/>
		2,034.00
		<hr/>
		4,245.68

Disbursements

Printing -----		1,129.25
Salary Sec.-Editor -----		500.00
Salary Stenographer -----		200.00
Office Expense -----		39.00
Stamps -----		37.00
Travel Expenses Two Delegates American Medical Association -----		180.00
Travel Expenses Sec.-Editor -----		45.00
Expenses Official Stenographer Convention		101.24
Sundries -----		55.12
Annual Audit -----		25.00
Balance in Banks Dec. 31st, 1936		
Defunct Seneca Bank -----		269.34
S. C. National Bank -----		664.63
Postal Savings -----		1,000.00
		<hr/>
		1,933.97
		<hr/>
		4,245.68

Statement of Receipts and Disbursements, Journal
South Carolina Medical Association, For Year
Ending December 31st, 1936

Receipts

Balance in Banks Jan. 1st, 1936		
Defunct Seneca Bank -----	\$	921.49
S. C. National Bank -----		1,661.38
		<hr/>
		2,582.87
Subscriptions -----		1,363.50
Advertising -----		2,484.95
		<hr/>
		6,431.32

Disbursements

Printing -----		1,255.00
Salary Sec.-Editor, Balance Due		
1935 -----		1,491.20
1936 -----		1,000.00
		<hr/>
		2,491.20
Salary Stenographer, Balance Due		
1935 -----		250.00
1936 -----		380.00
		<hr/>
		630.00
Office Expense -----		7.70
Sundries -----		58.00
Balance in Banks Dec. 31st, 1936		
Defunct Seneca Bank -----		921.49
S. C. National Bank -----		1,067.93
		<hr/>
		1,989.42
		<hr/>
		6,431.32

Combined Statement of Receipts and Disbursements,
South Carolina Medical Association and Journal of
South Carolina Medical Association, For Year
Ending December 31st, 1936

Receipts

Balance in Banks Jan. 1st, 1936		
Defunct Seneca Bank -----	\$	1,190.83
S. C. National Bank -----		2,603.72
Postal Savings -----		1,000.00
		<hr/>
		\$ 4,794.55
Advertising -----		2,484.95
Subscriptions -----		1,363.50
Membership Dues -----		2,034.00
		<hr/>
		10,677.00

Disbursements

Printing -----		2,384.25
Salary Sec.-Editor, Balance Due		
1935 -----		1,491.20
1936 -----		1,500.00
		<hr/>
		2,991.20
Salary Stenographer, Balance Due		
1935 -----		250.00
1936 -----		580.00
		<hr/>
		830.00
Office Expense -----		46.80
Expenses Two Delegates American Medical Association -----		180.00
Travel Expenses Sec.-Editor -----		45.00
Expenses Official Stenographer Con. ---		101.24
Stamps -----		37.00
Annual Audit -----		25.00
Sundries -----		113.12
Balance in Banks Dec. 31st, 1936		

Defunct Seneca Bank -----	1,190.83	
S. C. National Bank -----	1,732.56	
Postal Savings -----	1,000.00	3,923.39
		<hr/>
		10,677.00

ASSETS AS OF DEC. 31st, 1936

Cash in Banks and Postal Savings -----	3,923.39
Furniture and Fixtures -----	874.77
	<hr/>
	4,798.16

LIABILITIES AS OF DEC. 31st, 1936

Due E. A. Hines on salary 1936 -----	550.20
Due stenographer on salary 1936 -----	50.00
	<hr/>
	600.20

List of Members by Counties, 1936

	PAID	HON.
Abbeville -----	5	5
Aiken -----	4	
Anderson -----	38	4
Bamberg (Edisto) -----	6	
Beaufort-Jasper -----	6	
Berkeley -----	7	
Calhoun (Edisto) -----	3	
Cherokee -----	10	2
Chesterfield -----	7	
Chester -----	7	3
Charleston -----	84	10
Colleton -----	10	
Columbia -----	79	22
Darlington -----	14	
Dillon -----	1	
Dorchester -----	3	
Edgefield (Ridge) -----	2	
Fairfield -----	3	
Florence -----	26	1
Greenville -----	79	10
Greenwood -----	18	
Georgetown -----	1	
Kershaw -----	14	
Lancaster -----	8	
Laurens -----	12	4
Lexington -----	12	
Lexington (Ridge) -----	4	1
Marion -----	10	
Marlboro -----	8	1
Newberry -----	18	1
Cconee -----	10	4
Orangeburg (Edisto) -----	18	
Pickens -----	11	3
Saluda (Ridge) -----	4	
Spartanburg -----	54	5
Sumter -----	18	5
Union -----	10	5
Williamsburg -----	10	
York -----	21	4
	<hr/>	<hr/>
	655	90

Honorary Fellows -----	90
	<hr/>
Total Membership -----	745

Seneca, S. C.

April 7th, 1937

Dr. E. A. Hines, Sec.-Editor,
South Carolina Medical Association,
Seneca, S. C.

Dear Sir:

At your request I have audited the books of the South Carolina Medical Association and the Journal of the South Carolina Medical Association and hand you herewith my report, together with supporting certificates from the South Carolina National Bank, the Postoffice, and the Receiver of the Seneca Bank.

I find that an accurate record has been kept of all receipts and disbursements and of all necessary information. There is an increase of \$435.47 in advertising receipts over the previous year, and an increase of thirty one in the number of members. A net profit for the year is shown of \$269.84.

Yours truly,

Frances R. Richardson,
Auditor.

The South Carolina National Bank

Seneca, S. C.

April 5th, 1937

Dr. E. A. Hines, Editor
Journal S. C. Medical Asso.
Seneca, S. C.

Dear Sir:

This is to certify that the balance to your credit in this bank as of December 31st, 1936, was \$1,067.93.

Very truly yours,

C. V. Stribling,
Manager.

United States Post Office

Seneca, South Carolina

April 5, 1937

Dr. E. A. Hines,
(South Carolina Medical Association)
Seneca, South Carolina

Dear Sir:

The balance as shown on the Postal Savings books in this office, is \$1000.00.

This statement is furnished, as per your request, for the information of your auditor.

Yours very truly,

Ray Phillips, Postmaster.

The South Carolina National Bank

Seneca, S. C.

April 5th, 1937

Dr. E. A. Hines, Treasurer,
The S. C. Medical Asso.,
Seneca, S. C.

Dear Sir:

This is to certify that the balance of your claim

against the closed Seneca Bank as of December 31st, 1936, was \$269.34.

Very truly yours,
C. V. Stribling, Receiver,
THE SENECA BANK.

South Carolina National Bank

Seneca, S. C.
April 5th, 1937

Dr. E. A. Hines, Editor,
Journal of the S. C. Medical Asso.,
Seneca, S. C.
Dear Sir:

This is to certify that as of December 31st, 1936, the balance due on your claim against the closed Seneca Bank on open account was \$470.01; and the balance due on your claim represented by certificate

of deposit as of the same date was \$451.48.

Very truly yours,
C. V. Stribling, Receiver,
THE SENECA BANK.

The South Carolina National Bank

Seneca, S. C.
April 5th, 1937

Dr. E. A. Hines, Treas.
The S. C. Medical Asso.,
Seneca, S. C.
Dear Sir:

This is to certify that the balance to the credit of the above account in this bank as of December 31, 1936, was \$664.63.

Very truly yours,
C. V. Stribling, Manager.

BOOK REVIEWS

WHY WE DO IT. An Elementary Discussion of Human Conduct and Related Physiology. By Edward C. Mason, M.D., Ph.D., F.A.C.P., Professor of Physiology, University of Oklahoma School of Medicine, Oklahoma City.

St. Louis, The C. V. Mosby Company, 1937.

"Why We Do It" is an analysis of abnormal human behavior in terms of one's inability to adjust harmoniously the three fundamental interests of ego, sex, and herd. The analysis deals wholly with physiological and psychological factors. The author believes the new-born child to both ego-centric and narcissistic and that the problem is to transform such a "barbarian" into a product acceptable to society by helping it to meet its environment satisfactorily.

Written admittedly for the educated layman, this book contains much helpful information which a layman ought to know and to understand for his own and for society's good. Scientific terms which hitherto have been mere jargon for the lay mind take on a meaning easily understood by the educated. One can see why a product of the medical profession is inclined to place great stress upon the physiological factors which contribute to personality adjustment, but it is none-the-less true that the latter portion of the book—in which the author deals with factors psychological—is more readable and livelier. The practical value of "Why We Do It" would have been enhanced by the inclusion of more definite case histories illustrating certain phases of the process of personality adjustment. Despite this lack, people who have to do with human relations (in the ranks of whom the reviewer is numbered) will find this book stimulating and helpful.

Rev. J. E. H., Rector St. Paul's Episcopal Church, Augusta, Georgia.

PERSONAL HYGIENE. By C. E. Turner, M.A., Dr.P.H., Professor of Biology and Public Health in the Massachusetts Institute of Technology; Formerly Associate Professor of Hygiene in the Tufts College Medical and Dental Schools; Sometime Member of the Administrative Board in the School of Public Health of Harvard University and the Massachusetts Institute of Technology; Fellow American Public Health Association; Chairman, Health Section, World Federation of Education Associations; Major Sanitary Corps, U. S. A. (Reserve).

With eighty-four text illustrations and three color plates.

St. Louis, The C. V. Mosby Company, 1937.

The author of this book is a teacher in one of the outstanding institutions of the world from the standpoint of public health activities. The trend is toward greater personal health accentuation with the hope that mass effort may be in time greatly minimized.

Much may be expected from the increasing knowledge of public health matters and personal health problems on the part of many thousands of teachers in the schools of this country. The author has attempted with success to provide a text worthy of repeated reference on these subjects. The book has three hundred and thirty three pages and many interesting illustrations.

THE LARYNX AND ITS DISEASES. By Chevalier Jackson, M.D., Sc.D., LL.D., F.A.C.S., Professor of Bronchoscopy and Esophagoscopy, Temple University, Philadelphia and Chevalier L. Jackson, A.B., M.D., M.Sc. (Med.), F.A.C.S., Professor of Clinical Bronchoscopy and Esophagoscopy, Temple University, Philadelphia.

555 pages with 221 illustrations, including 11 plates in color.

Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$8.00 net.

The world bows to the Jacksons, father and son, as being the most outstanding authorities on the subject of which this book treats. The authors state that no single volume of a comprehensive scope has ever hitherto been published and they undertake to fill this need. Of course everyone knows of the brilliant achievements of the Jacksons in the domain of foreign body operations, but that is only a small part of their contributions to the general subject as outlined in this book. It is amazing to contemplate the far-reaching importance the larynx may assume. The book begins with a satisfactory section on the anatomy and physiology of the larynx, as is right and proper. Then there comes a presentation from the general standpoint, and after that the chapters and illustrations become more specific and exhaustive in the treatment of individual pathological conditions. The average doctor will be interested in the chapter on The Acute Inflammatory Diseases of the Larynx, and the authors suggest that out of the multitude of remedies in the history of medicine the quickest way to recover is to take an airplane to the tropics, but they admit this is impracticable; so other remedies must be resorted to. They say that the best local remedy is silence, and the local applications do more harm than good, and that the local use of nitrate of silver is one of the worst things that can be done. They are opposed to the use of opium in any form. They agree that the increase of elimination by bowel, skin, and kidneys is of value. Then comes the steam inhalations with the well-known compound tincture of benzoin. Several other remedies are suggested, but there are no specifics, and in general the prognosis is good. Of course, malignant diseases of the larynx, neuroses and other chronic conditions including tuberculosis of the larynx have been given careful consideration. The illustrations in colors and otherwise have been well presented. Intubation and tracheotomy have of course been extensively discussed. There is a chapter on Syphilis of the Larynx worthy of mention since there is a nation wide pursuit of the *Treponema pallidum*, and the larynx does not escape, since statistics show that six per cent is the frequency of the disease in the larynx.

SURGICAL TREATMENT. By James Peter Warbasse, M.D., F.A.C.S., Special Lecturer in the Long Island Medical College; Formerly Attending Surgeon to the Methodist Episcopal and the Wycokoff Heights Hospitals, Brooklyn, N. Y., and Calvin Mason Smyth, Jr., B.S., M.D., F.A.C.S., Assistant Professor of Surgery in the University of Pennsylvania, Graduate School of Medicine;

Surgeon-in-chief to the Methodist Episcopal Hospital, Phila., Pa.; Visiting Surgeon to the Abington memorial Hospital, Abington, Pa.

Second Edition, Thoroughly Revised and Reset. 3 Volumes with Separate Index. 2617 pages with 2486 illustrations on 2237 figures, some in colors.

Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$35.00 set.

The first edition of this work was a masterpiece and the second edition is no less so. The original work was in the nature of a monograph, and the present edition to a large extent continues that idea though there is a co-author. Of course, every important advance in surgical treatment has been recorded, and this will make the three volumes an authoritative library for the general practitioner, the general surgeon, and even the surgical specialist. The view-point that the patient as a whole always deserves due consideration is worthy of commendation. Then there is the effort to stress that all procedures be the simplest in concept available. The preparation of the patient, the details of the armamentarium, the anesthesia, and after the operation the care of the patient until his recovery, have all been presented in a satisfactory way. The illustrations, and there are many hundreds of them, have been admirably done. There are some three thousand pages all told, and this should be a vade mecum of surgical practice for many years to come.

PHYSICAL DIAGNOSIS. The Art and Technique of History Taking and Physical Examination of the Patient in Health and in Disease. By Don C. Sutton, M.S., M.D., Associate Professor of Medicine, Northwestern University School of Medicine; Attending Physician and Chairman of the Medical Division of the Cook County Hospital; Chief of the Cardiac Clinic, Cook County Hospital, Chicago; Attending Physician, The Evanston Hospital.

With 298 Text Illustrations, and 8 Color Plates. St. Louis, The C. V. Mosby Company, 1937.

This is an admirable presentation of the very foundation principles of the practice of medicine. The author begins with a clear cut conception of the necessity for the student to be familiar with the age-old landmarks of clinical medicine and how to observe them by the simpler methods of physical diagnosis. He places the laboratory, the X-ray and other special aids to diagnosis in their proper place as supplementary measures. The section on The History of Physical Diagnosis gives an epitome of the epochs in its development. The illustrations have been carefully selected, and they are well done by the author. Many of these we have never seen in any work on the subject. There are about three hundred of these illustrations and a considerable number of color plates. This is a book of about five hundred pages. It is really a

fascinating production rather than one of the dry as dust compilations we sometimes see.

THE TECHNIC OF LOCAL ANESTHESIA. By Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S., Professor of Surgery in the University of Kansas; Surgeon To The Halstead Hospital, Halstead, Kansas; To St. Luke's Hospital and St. Mary's Hospital, Kansas City, Missouri; and To the Providence Hospital, Kansas City, Kansas.

Sixth Edition, Price \$5.00.

St. Louis, The C. V. Mosby Company, 1937.

This well known book has now reached its sixth edition and deservedly so. The persistent efforts

of several authorities on local anesthesia in this country seem now to be bearing fruit somewhat comparable to European practice. After all, the basic principles of local anesthesia are somewhat simple and the armamentarium is not very complicated. One must have, however, a considerable knowledge of anatomy and indeed physiology to become expert in this field. It is obvious when one peruses this splendid book that only the specialist should undertake many of the procedures advocated, such as spinal anesthesia. The general practitioner will find in this book much information for the average practice, and indeed the specialist will also profit by a careful consideration of the contents of the volume.

SOCIETY REPORTS

YORK COUNTY MEDICAL SOCIETY MEETING

Dr. Hamilton McKay, of Charlotte, N. C., was the speaker at a meeting of the York County Medical Society held at the home of Dr. John I. Barron, Secretary of the organization, at York, S. C., June 16. Doctor McKay read a paper on a medical topic, illustrated by lantern slides.

Dr. J. R. Des Portes, of Fort Mill, President of the York County Medical Society, who is also President Elect of the South Carolina Medical Association, presided. Guests included Dr. Rufus Bratton and Dr. J. C. Bruce, Jr., young men of York who were graduated in medicine a few days ago. Dr. W. Lee Hart, of the United States army, an honorary member of the society, was in attendance.

At this meeting Mrs. John I. Barron and Mrs. J. D. McDowell of the Woman's Auxiliary of the society were joint hostesses.

FIFTH DISTRICT MEDICAL SOCIETY MEETING

The Fifth District Medical Society, Dr. John I. Barron, of York, President, and Dr. W. K. McGill, of Clover, Secretary, held a meeting at the Chester County Court House, Chester, S. C., May 20, 1937. Following the meeting a supper was held at the Chester Hotel.

The following appeared on the program. Invocation, Dr. John McSween, Pastor of the

Purity Presbyterian Church; Address of Welcome, the President of the Chester County Medical Society; response by Dr. Carl A. West, of Camden; Physical Therapy, Dr. S. W. Davis, of Duke University; A Typical Ulcer of the Stomach—Case Report with X-ray, Dr. S. H. Shippey and Dr. E. E. Herlong, both of Rock Hill; Bronchoscopy In The Diagnosis of Intrathoracic Conditions, Dr. V. K. Hart, of Charlotte, N. C.; A Case Report, Dr. Wilson Morrison, of Lancaster.

The following officers were elected to serve for the ensuing year: Dr. S. J. Blackmon, of Kershaw, President; Dr. J. M. Settle, of Great Falls, Vice President; and Dr. J. W. Brunson, of Camden, Secretary. Camden was selected for the next place of meeting.

OCONEE COUNTY MEDICAL SOCIETY MEETING

The Oconee County Medical Society met at Walhalla in the County Health Department Rooms, June 3, 1937, with Dr. Joe Johnson, Vice President, in the Chair. The minutes of the previous meeting were read and approved.

Under the head of business a report of progress on the building of the Oconee County Hospital near Seneca was made by the Secretary. The report disclosed that the building was nearing completion, but that ways and means for equipment had not yet been worked out. The hospital will be approximately a thirty eight bed institution. Dr. W. B. Furman, County Health

Officer, gave a resume of his impressions as to the scope of the work for the ensuing year.

The scientific program was then entered into and the guest speaker, Dr. Keitt Hayne Smith, a specialist in urology of Greenville, read an admirable paper on the new treatment of urinary infections by mendelic acid. Several members of the society discussed the paper and expressed their pleasure at this important contribution by the distinguished visitor.

The attendance was very good for a summer meeting of the Society.

E. A. Hines, Secretary.

MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA

The Medical Society of South Carolina met at the Roper Hospital, June 8, 1937, Charleston, S. C. The meeting was called to order by Dr. Buist, who presided until the arrival of the President, Dr. W. A. Smith. There were 21 members present and 3 guests. The Minutes of the meeting of May 25 were read and approved.

Dr. Cathcart, Chairman of the Board of Finance, read an extract from the Will of the late James R. Pringle which provided for a bequest to the Roper Hospital, and made the following report of same:

June 8, 1937.

"To the President and Members of the Medical Society of South Carolina
Gentlemen:

"The Board of Finance begs to report that they have received from Mr. Frank R. Frost, the Executor of the Estate of Mr. James R. Pringle, a check for \$12,000, which was bequeathed by the late James R. Pringle to the Roper Hospital at the death of Miss Mary F. Elberle. According to the terms of the bequest, this amount is to be invested, and only the income therefrom to be used for the Riverside Infirmary."

Dr. G. McF. Mood, Treasurer of the Board of Finance, executed the receipt of the same, and this amount will be invested as per the terms of the bequest.

Very truly yours,

R. S. Cathcart, M.D.,

Chairman, Board of Finance.

SUPPLIES

Needed Nutrition

...EASY TO DIGEST

	1 Ounce of Cocomalt adds	1 Glass of Milk (8 Liquid Ozs.) contains	Result! 1 Glass of Cocomalt and milk contains
IRON	0.005 GRAM	*TRACE	0.005 GRAM
VITAMIN D	81 U. S. P. UNITS	*SMALL AMOUNT; VARIABLE	81 U. S. P. UNITS
CALCIUM	0.15 GRAM	0.24 GRAM	0.39 GRAM
PHOSPHORUS	0.16 "	0.17 "	0.33 "
PROTEIN	4.00 GRAMS	7.92 GRAMS	11.92 GRAMS
FAT	1.25 "	8.93 "	9.78 "
CARBOHYDRATES	21.50 "	10.97 "	32.47 "

*Normally Iron and Vitamin D are present in Milk in only very small and variable amounts.

†Cocomalt, the protective food drink, is fortified with these amounts of Calcium, Phosphorus, Iron and Vitamin D.

DOCTORS often say that, during convalescence, one of the greatest problems is nutrition. In such cases many physicians have found Cocomalt helpful. It is a particularly good source of food-energy and young and old alike find it easy to digest.

An ounce-serving of Cocomalt increases the food-energy of a cup or glass of milk 70 per cent...this quantity of Cocomalt adding 4.00 grams of Protein, 21.50 grams of Carbohydrates, .15 gram of Calcium and .16 gram of Phosphorus to the milk. More important, each serving of this protective food drink contains 81 U.S.P. Units of Vitamin D, which aids the system to utilize the calcium and phosphorus. The Vitamin D is derived from natural oils and biologically tested for potency.

In addition, each serving of Cocomalt provides 5 milligrams of effective Iron that has been biologically tested for assimilation...enough Iron to supply $\frac{1}{2}$ of the daily nutritional requirements of the normal patient.

Cocomalt is very inexpensive and is available at grocery and drug stores in $\frac{1}{2}$ -lb. and 1-lb. purity-sealed cans. Also, for professional use, in the economical 5-lb. hospital size.

Cocomalt is the registered trade-mark
of R. B. Davis Co., Hoboken, N. J.



FREE TO
PHYSICIANS

R. B. DAVIS CO., Hoboken, N. J., Dept. KK-7

Please send me a free trial size can of Cocomalt.

Doctor _____

Street and Number _____

City _____

State _____

This was received as information.

Dr. A. J. Buist, Jr., asked the Secretary to report on the Credit Bureau organized some time before. The Secretary replied that the Chairman of the Committee, Dr. Robert Wilson, Jr., would bring up at the next meeting the matter of the utilization of the balance of the funds on hand.

Dr. Cain paid his respects to the Society as Councilor of the State Medical Association, and brought before the Society for its consideration the matter of the objectives of the State Committee on Hospital Insurance. He read an article describing the workings of this insurance in other parts of the country.

Dr. Cathcart remarked that he had been told that in Alabama the experience with this type of insurance from the medical standpoint had been unsatisfactory.

Dr. A. E. Baker discussed the reasonably successful operation of such insurance plans in New York State.

Upon motion of Dr. Cathcart, the Society voted that the Board of Commissioners of Roper Hospital be appointed as a special committee to confer with other hospitals on the question of Hospital Insurance, and to report to the Society at a later date.

Dr. A. J. Buist made a motion that the Superintendent of the Roper Hospital instruct the Admitting Staff to admit no patient at the request of an attending physician except in the

case of an emergency. This was discussed at length by Drs. Buist, Jr., J. J. Ravenel, Cain, Pearlstine, Waring, and W. A. Smith, and was passed.

The Scientific Program consisted of a paper by Dr. W. C. Hunsucker on Appendicitis at the Roper Hospital, 1934-1937. The paper was discussed by Drs. A. E. Baker, McCrady, Pearlstine, Buist, Cain, Maguire, and Linton, with Dr. Hunsucker closing the discussion.

The meeting then adjourned.

J. I. Waring, M.D., Secretary.

PROGRAM OF THE EASTERN CAROLINA MEDICAL ASSOCIATION

Myrtle Beach, S. C., July 16, 1937, Ocean Forest Hotel, 3 o'clock, P.M.

Heart Pains, Dr. Heyward Gibbs, Columbia, S. C.

The Management of Acute Traumatic Injuries, Dr. James McLeod, Florence, S. C.

Troublesome Problems in the Conduct of Labor, Dr. J. D. Guess, Greenville, S. C.

The Nervous Child, Dr. Sam Ravenel, Greensboro, N. C.

An Everyday Approach to Skin Disease, Dr. Elbert L. Parsons, Duke Hospital, Durham, N. C.

Discussions limited to 3 minutes.

Banquet in dining room.

Dancing on the Patio.

BLACKMAN SANATORIUM

A medical institution for the diagnosis and treatment of internal diseases



Extensive facilities for hydrotherapy and colonic lavage.

Electrotherapy including fulguration

LIKE NEW THROUGHOUT

Clinical and X-ray Laboratory Service

25 Attractive Hotel Type Rooms

A Department for the Lambert Treatment for Alcohol

418 CAPITOL AVENUE

ATLANTA, GA.

THE JOURNAL

of the

South Carolina Medical Association

VOLUME XXXIII

August, 1937

NUMBER 8

SYPHILIS CONTROL IN SOUTH CAROLINA

By

JAMES E. BOONE, M.D.
Columbia, S. C.

In presenting this communication to you I first want to tell you that I claim nothing new or original, and the recommendations are made to conform to the standard suggested by the American Medical Association and the United States Public Health Service.

Since the discovery of the cause of syphilis a whole generation has grown up, and yet there is no reliable evidence that the incidence of syphilis has diminished in the United States.

We possess all the basic knowledge necessary to eradicate syphilis, and all that is required, so it is said, is the effective application of that knowledge and syphilis will disappear. Why then has syphilis not become extinct? Our conclusion, then, must be that we have been unable to apply our knowledge effectively. We are theoretically in a position to deal effectively with syphilis; however, we still lack precise knowledge concerning many phases of it.

Your committee on the prevention and control of syphilis has formulated a plan for this State which contains the essential features for State syphilis control as recommended by the Conference on Control Work held in Washington December 28-30, 1936.

I shall not attempt to discuss this entire program, as time will not permit, but shall dwell only on a few main parts.

1. The set-up.

This program is to be directed and controlled by the South Carolina Medical Association

through a central committee consisting of five members, and each county will have a local advisory committee consisting of four physicians to make recommendations for that particular locality. The details of any modern program will differ from city to city in accordance with the size and population.

The principles involved, however, should be identical, since these principles are accepted scientific facts.

In order to have the program function properly, we feel that local committees in each county should be familiar with their particular needs, and there will be no conflict in this respect.

For the administration of this program, in addition to the above committees there must be a full time control officer associated with the communicable disease division of the Public Health Department, but directed as an entirely separate section.

2. A state wide survey to determine the number of cases of syphilis in South Carolina.

Information as to the prevalence of syphilis must be obtained at the beginning of special efforts to control, in order that this information can be compared with similar data during the progress of the program.

Before syphilis can be treated, it is necessary to properly diagnose the disease. All aids necessary to make a proper diagnosis will be furnished; namely, through the Public Health Service to discover the individuals with syphilis, and by giving every possible aid to physicians and institutions in case finding activities; that is, free and prompt laboratory service, Wassermann, Kahn, and dark field examination, routine laboratory examination of spinal fluid, including mastic test.

The local advisory committee will recommend

*Read before the South Carolina Medical Association, Columbia, S. C., April 15, 1937.

the desirability of establishing a diagnostic clinic in that locality. These diagnostic clinics are to be limited to the laboratory work mentioned above, and will examine cases only when referred by the attending physician, the request being written on a prescribed form, and no treatment or any information given unless so requested by the referring physician.

By whom and what treatment shall be given? It is necessary to provide treatment for the many neglected cases of syphilis, and we believe the solution is not to be found in establishing more and larger health departments but rather in cooperation with private practitioners, voluntary hospitals, and clinics. We will provide ample facilities for diagnosis and treatment, and we urge every physician to treat his own patients whenever possible.

3 (A). The arsenicals, bismuth preparations and mercury to be distributed free for all persons infected with syphilis (pay and indigent).

Before any drug is generally accepted in the treatment of syphilis, it will have fulfilled the requirements of long term experimental and clinical study outlined in accepted text books of syphilology. This particular point under discussion is not so much the general acceptance of a drug by the medical profession as a choice of drugs for distribution to clinics and practitioners. Therefore, it is necessary that we avoid the use of drugs or methods of administration which are still in the experimental stage. Four major considerations govern the distribution of drugs; these are effectiveness, ease of administration, reactivity, and price.

The only arsenical drugs which meet these requirements are the arsphenamines (particularly arsphenamine and neo arsphenamine) and tryparsamide. Sulph-arsphenamine is a dangerous drug to use in adults; its only field of usefulness is in infants or young children. Under no circumstances should we undertake the promiscuous distribution of tryparsamide; the danger of visual reactions from the use of this drug is so great that it should not be used except by experts who have at their command an adequate ophthalmologic service.

At present a new drug, mapharsen, has thus far been demonstrated in the hands of a number of investigators to be of value in rapid sterilization of surface lesions, in the healing of lesions,

in the reversal of serologic test in early syphilis, and in low reactivity. Only years of observation will demonstrate its comparable value with the arsphenamines in long-term clinical results.

Bismuth preparations will be distributed. Present opinion indicates that these preparations should be either an insoluble salt suspended in oil or a lipo soluble salt. Since the former is much cheaper than the latter, we prefer the insoluble salt, of which the more satisfactory is the sub-salicylate in 10 per cent suspension.

In order to deal with the situation in rural areas where clinics are located at a long distance, it is necessary to make available mercurial ointments to be utilized as interim treatment between the arsenical courses.

3 (B). The committee feels that a standard minimum course of therapy should be formulated. There are two systems for the treatment of early syphilis, the British-Danish, intermittent, and the American continuous—alternating. The United States Public Health Service believes they have proven the continuous—alternating to be the better. It is better than any American intermittent system which simply departs from the continuous by introducing rest periods, and lapses into a system of drug doses and interval usage that should be continued. Against American intermittent procedure of this lapsing type we should be warned and warned again.

The American alternating (single-deck) system cannot give rest periods without a striking drop in effectiveness, a sharp rise in relapses, delayed serological reversals, and irreversible positives.

The American continuous—alternating system has moreover the additional advantage of saving the difference between 65 and 90 weeks, and the League report concedes its probable greater effectiveness in keeping the patient in contact and control. Rest periods do not increase the tolerance of drugs. It is now apparent that the more refractory stage of early syphilis from the standpoint of control of relapse, serological results, and cure, is the sero positive primary, yet in view of the slow progress made in the dark field diagnosis the inevitable tendency of the uneducated public to bring a self concealing disease to late diagnosis and treatment, and the serologic-mindedness of the

medical profession, this is precisely the stage in which syphilis will tend to present itself for treatment for a long time to come.

Let the doctor and patient, therefore, be warned that this stage of the disease carries the worst not the best expectancy, that it can be brought up to the general level only by the use of some 15 more arsphenamine injections than are called for in seronegative primary syphilis, and 10 more injections than are called for in a fully developed secondary case, with a corresponding increase in the amount of bismuth administered.

At best the results for seropositive primary syphilis, even with the increased treatment described, are 20 per cent (65 per cent versus 85 per cent) below the best obtainable by treatment begun in the seronegative primary stage.

Fully developed secondary syphilis treated by intermittent or catch-as-catch-can methods yields even worse results than seropositive primary (58 percent). But in compensation it appears that if secondary syphilis is treated by a continuous system, the results quite closely approximate the best obtained in seronegative primary syphilis (81 per cent as compared with 86 per cent).

The theoretical basis for this very interesting observation cannot be here discussed but is brought out in recent publications. It offers us substantial encouragement for the individual who appears with secondaries in contrast with the comparatively unsatisfactory status of seropositive primary syphilis.

Let me impress you, then, once more with the importance of the continuous treatment of syphilis.

The conclusions drawn from the study of cutaneous and mucosal relapse by the University of Pennsylvania group and the presentation of this problem from the Cooperative Group material have been summarized in the following condensed statement of the principles governing the control of infectiousness in early syphilis. Any standardization of treatment must, it is believed, conform to these principles and take account of these conclusions to be acceptable:

Control of Infectiousness in Syphilis.

1. Infectiousness in syphilis is a function of three factors: (a) time; (b) arsphenamine;

(c) individual predisposition to relapse.

2. Infectiousness is not a function of the serologic state of the patient. No serologic test has any value as a proof of infectiousness or noninfectiousness, early or late.

3. Syphilis, treated or untreated, is most infectious early, grows less so with lapse of time, is rarely infectious (but may be so) after five years. Late syphilids and late prenatal ("congenital") cases are not infectious.

4. Therefore, spar for time and delay in any issue involving infectiousness (i.e., marriage, intercourse.)

5. Infectiousness is controlled and syphilis will be extinguished, if ever, as a health problem, by treatment of the infectious person.

6. The public health responsibility of the physician is therefore with the *early* months and years of the disease.

7. Treatment to control infectiousness must be with the arsphenamines. No other drug will do.

8. The use of arsphenamines must not be delayed even to secure any minor individual immunizing advantage.

9. Treatment to control infectiousness must be continuous, not intermittent, and last at least eighteen months. Rest periods encourage relapse.

10. Acetarsone (Stovarsol), tryparsamide, and non specific (including fever) therapy must not be expected to control infectiousness.

13. The amount of arsphenamine required is not less than 20 injections. The critical point is between 5 and 9.

14. Heavy metal is required as an adjunct.

15. The infectiousness of semen and vaginal secretions, even in the absence of lesions, in early and latent syphilis demands absolute mechanical protection in intercourse, treatment or no treatment.

16. Continence, advised, is seldom practiced.

17. There is a relapsing type of early syphilis regarding which no rules or predictions can be formulated.

18. In relapsing types, infectiousness may reappear immediately after, or even during (arsphenamine resistant) treatment with the arsphenamines.

20. The great promotor and source of relapse is the *short arsphenamine course* (1 to 4

injections) unsupported by other treatment.

21. Treatment prophylaxis (after exposure) is unreliable. If given it must be followed through.

25. The child of the pregnant syphilitic woman should not be destroyed, but protected in utero by treatment of the mother, before and after conception, and of the father, if syphilitic, before conception.

Latent syphilis.

With the new detection machinery in full movement an enormous influx of seropositive latency is to be expected, and must be evaluated and treated.

The aim of treatment after the establishment of latency is no longer radical cure but instead clinical "arrest," and the prevention of infection of others.

Latent syphilis less than four years duration should be given the treatment for early syphilis.

The application of the method of treating latent syphilis is materially influenced by the patient's age and probable life expectancy.

If the patient has passed the age of sexual activity so that he no longer exposes others to infection and if his own probable life expectancy is only ten to fifteen years, the risk of treatment may well be greater than the risk of syphilis. It is, of course, not possible to set an age limit past which treatment should be given or its intensity lessened. Each patient presents an individual problem to be solved only after consideration of the physical and social status.

Syphilitic woman:

It is impossible to minimize the advance made by the demonstration of the effects of treatment for the syphilitic woman upon the health and expectancy of the child.

The principles are summarized as follows by Dr. John H. Stokes:

1. Recognize infection before the fifth month of the pregnancy.

2. Treat every woman known to have had syphilis through each pregnancy, whether Wassermann positive or negative; take blood pressure and test urine for albumen before each injection.

3. Give in excess of 4 g neoarsphenamine, in a total of at least 10 injections.

4. Give also at least 10 bismuth injections.

5. Rely chiefly upon the arsphenamine—end with it.

6. Have cord and tenth day blood tests on the baby, not the former alone.

7. Follow the child for at least 2 years—more if possible; have X-ray studies of the bones if suspect, regardless of blood findings, shortly after birth.

The syphilitic child and the neuro-syphilitic.

This is too great a problem to review at this time, and requires special examination and treatment.

There are many phases of this program that I would like to review and will probably do so at a later date, and in bringing this communication to a close I quote Dr. Stokes on his paper, "Clinical Problems in Syphilis Control."

"All that has gone before is reduced to nothing unless you bring your patient to an unswerving allegiance to yourself and all you represent and advocate, by such a humanity of approach, such an anticipation of his needs and problems as a being like yourself, as only the heart can compass. Injections of chemotherapeutic agents are merely mediated by the hand and head. Effective treatment for syphilis may indeed be mechanized to a certain perfection of knowledge. But the uprooting of the disease from its hold upon humanity is done by the eye, the voice, the understanding and sympathetic spirit without which all of our much gathering of knowledge is but the unliving dust."

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DISCUSSION

Dr. James A. Hayne, Columbia:

I am not going to orate; I love to hear myself speak, but I am not going to indulge myself in that pleasure today. The slogan the State Board of Health has adopted is that no child shall be born in South Carolina five years from now with hereditary syphilis. That is an entirely feasible proposition, and it merely depends upon the medical profession of South Carolina as to whether they are going to examine their pregnant women—give them the Wassermann or the Kahn and, if they have a positive reaction, give them appropriate treatment. It depends upon that. It could be done in less than five years, but I give them that period.

The State Board of Health is heart and soul in the fight against syphilis. It is your job, not our job. We are going to furnish the instruments, the tools, the guns, with which you can wage this war. We are going out and publish the propaganda that is necessary in waging any war. But it is up to the physicians of South Carolina and the United States. It has been brought to their attention. They know what the problem is. They know that in South Carolina one out of every twenty-five white people have syphilis and one out of every three or four Negroes. You have made a successful fight against tuberculosis, which is a much harder disease to conquer; and now we are asking you to make a fight against a disease which is easier to conquer and costs less to conquer.

Hugh E. Wyman, M.D., Columbia:

It has been 31 years since the discovery of the treponema pallidum, which everyone accepts as the causative agent of syphilis,—30 years since the discovery of the Wassermann reaction, and 29 years since Ehrlich's discovery of the arsphenamines in the treatment of syphilis. Hence, we know the cause of syphilis, how it is spread, the diagnostic criteria, which are the Dark Field and Wassermann tests, and the specific cure for the disease. Today, it should be as extinct as the proverbial "dodo" bird, but instead it is apparently more prevalent than ever before in the history of our country. It is alleged by no less an authority than Dr. Paran, Surgeon General of the U.S.P.H. Service, that one person in every ten in the United States is afflicted with syphilis.

In general, a programme for the control and eradication of syphilis can be summed up under four general heads:

EDUCATION PROPHYLAXIS DIAGNOSIS TREATMENT.

It is possible to prevent syphilis or gonorrhoea by the avoidance of the exposure to the infection. Exposure always being a voluntary action, and education influences conduct, therefore, *Education* must have a place in any programme. Individual education, education of the public, through the public press, and other lay organizations, such as Parent-Teacher Groups, Service Clubs, etc.

It is also possible, by mechanical and chemical means, to prevent gonorrhoea and syphilis in spite of exposure with an infected person. Therefore, *Prophylaxis* must have a place in such a programme.

It is possible to render infected persons non-infectious by specific therapy, therefore, *Treatment* must have a place in the programme.

I am of the opinion that the State should have easily accessible laboratories, and furnish to all physicians, free of charge, serological and dark field examinations for the diagnosis of syphilis, free arsenicals and heavy metals used in the treatment of syphilis, a properly organized and carried out educational programme for information to the laity, and the establishment of prophylactic stations where advisable.

I do not believe that physicians or clinics should treat syphilis free of charge. It has been my observation that patients who pay something for their treatment will continue treatment with more regularity than those who pay nothing.

Prevention, Early Diagnosis, and Adequate Treatment, are the criteria in any programme to eradicate syphilis.

SOME OBSERVATIONS ON ERRORS MADE IN THE DIAGNOSIS AND MAN- AGEMENT OF EAR, NOSE AND THROAT CONDITIONS

By

J. W. JERVEY, JR., M.D.

Greenville, S. C.

So many mistakes have been observed in the diagnosis and management of conditions in the ear, nose and throat that a discussion of the subject seems fully warranted and it is hoped will be interesting as well as helpful. Far be it from me to suggest that all these errors are made by others than otolaryngologists. Many of them are so made, but no illusions are cherished as to my own infallibility or that of my confreres. In reviewing this topic I shall try to

*Read before the South Carolina Medical Association, Columbia, S. C., April 14, 1937.

avoid reference to highly controversial points within the field of otolaryngology and confine my remarks to some of the more practical problems which are apt from day to day to confront *anyone* in the active practice of medicine or surgery. I hope for your just and constructive criticism. Time prevents analysis of many matters which are deserving of consideration.

The following cases are factual:

I was called to see a young lady who had consulted an excellent man in one of our larger eastern cities. He had opened her right ear three weeks before and it had healed in a reasonable time. Forty-eight hours before I saw her the ear began to discharge again and he had urged an immediate mastoidectomy. The ear drum was congested but not bulging. The canal wall was quite red. Slight discharge was present and some mastoid tenderness. A most important point, however, was that with all this, she had excruciating pain on motion of the auricle. She completely recovered from her external otitis in about three days time.

How many of you here would like to have a middle ear abscess opened without an anesthetic? It is being so done entirely too often. I don't mean to say that incision without anesthesia is *never* indicated, but incision is most safely and satisfactorily accomplished under a general anesthetic wherever possible. Merely sticking the ear drum is not sufficient. With the patient asleep one can take his time, and secure a wide opening without injury to the ossicles, or the inner wall of the middle ear.

It would seem in obscure cases with fever, and especially so in children, that sufficient stress has been laid on the importance of an examination of the ears; both ears *please!* Yet this simple procedure is too often omitted. A child of twelve came to me because of a discharging ear of a week's duration. The diagnosis had been influenza. No question had been asked relative to ear pain, yet he had had it from the beginning, though lacking the desire or the intelligence to make it known, and the ears had not been examined. He is at present under observation with treatment directed toward obviating the necessity for a mastoidectomy. Would the outcome have been different had the ears been examined at the physician's original visit? Perhaps so; perhaps not; but in either

event there is no plausible excuse for failure to make a reasonably complete physical examination.

It is probably not amiss here to express my opinion regarding haste in advising mastoidectomy. Incredibly often, as in the case previously mentioned, operation is insisted upon too quickly. There is rarely any need to be precipitate in advising this procedure. In ten years of experience I have never seen a case where it was an emergency measure. Many have been spared the necessity, and to my knowledge none have been lost because of procrastination.

Post-auricular abscess is met with occasionally. Almost always it is the result of mastoid disease breaking through the cortex. Some years ago a distinguished and now deceased member of this association was confronted with this condition in a young man. With little hesitation he plunged a knife into the abscess and inadvertently opened a very superficial lateral sinus. In such a situation the enormous hemorrhage is enough to shake the heart of the stoutest surgeon. Being a man of resourcefulness, however, he quickly forced his finger into the opening and with gauze rapidly packed the wound as tightly as possible. The patient was ultimately saved. The incident suggests that a post-auricular abscess should be approached with caution.

Chronic purulent otitis media is a distressing condition and unpleasant for both patient and doctor. Unfortunately, irrigations are usually advised. These cannot be carried out under sterile precautions and moisture promotes the continuance of discharge. These patients can be more safely shown how to dry the ears with cotton swabs and follow this with the application of a good antiseptic, preferably a tincture. I have seen many chronic ears dry up a few days after irrigations were stopped. Frequent attention by an otolaryngologist is desirable, and often wonders can be accomplished with a little care and patience.

Acute membranous nasopharyngitis is commonly undiagnosed. These people suffer from severe sorethroat, almost unbearable headache, and prostration with high fever during the earlier days of illness. The nose is usually well open. *There may be no pathology observable in the pharynx.* Only with a post nasal mirror

can be seen intense redness of the nasopharynx with enlargement of lymphoid follicles, some of which are ulcerated or covered with a dense membranous or purulent exudate. Please do not forget the nasopharynx!

Diphtheria is mentioned for two reasons; first because I have in recent months observed two cases which clinically appeared to be peritonsillar abscesses, so much so that one had been incised before admission to the isolation ward and the other was on the point of being opened by the interne; second because in one of these cases toxin-antitoxin had been previously used. *Don't forget diphtheria simply because the patient has been previously immunized.*

Occasionally still is seen a patient who has a furuncle in or near the external naris or upper lip which has been incised. At the expense of possibly insulting your intelligence, let me warn that incision or squeezing of a furuncle about the naris or upper lip is an exceedingly ill advised practice, as there is great danger of resultant cavernous sinus thrombosis with inevitable death. The only local treatment should be the use of hot applications.

Frequently a patient approaches the rhinologist with a ready-made doctor's diagnosis of tumor or polyp in the naris. Oftener than not it is only the anterior end of an enlarged or oedematous inferior turbinate, but the poor fellow has been needlessly frightened.

I know of no procedure in medicine or surgery which, when done in properly selected cases, mark that, *when done in properly selected cases*, gives as much relief to the patient, and satisfaction to both patient and doctor, as a well executed submucous resection. Submucous resection of the nasal septum is not an operation on the nasal accessory sinuses, although it is commonly so regarded by the laity. A patient with a badly deflected septum, one definitely requiring operation, came to me not long ago looking for help. He had been advised by his family physician, who was and is a good friend of mine, never to have his nose operated on. Here was a practitioner absolutely unqualified to pass on the merits of this particular case giving positive advice without the sphere of his daily work, and condemning his patient to long suffering from a bony and cartilagenous nasal obstruction. Believe me, the same things happens only

too frequently. It is regrettable if all of us in the field of otolaryngology are to be indicted because a few have gone and are still going the limit in surgery wherever there is opportunity for it with remuneration. Surely some of us deserve your confidence and consideration, and surely too your patients should have the best they can get in the hands of one qualified by thorough training and prompted by honest judgment.

Usually, save in acute conditions, the less you put in a nose the better. The most satisfactory solution that can be used to afford ventilation and drainage is a 2 per cent solution of ephedrine sulphate in normal saline. Most of the oily preparations inhibit ciliary activity and tend to promote or prolong symptoms although they may give momentary relief. Time and again I have had patients come to me complaining of nasal obstruction and discharge. Inquiry reveals that for weeks or months they have been using some medicine to open up the nose: Only temporary comfort is being secured and the tendency is to use more and more of the remedy as it becomes less and less efficient. The simple withdrawal of intranasal treatment results in cure.

Let me acquaint you with an original observation of my own, which I believe of very definite value in the management of certain pathologic conditions in the antrum of Highmore. We are all familiar with the fact that X-rays are frequently misleading, and that irrigation of an antrum which is cloudy on transillumination often produces no pus. As an additional aid to physical diagnosis I offer the use of a nasal spray consisting of a solution of cocaine and adrenalin. Many antrums, completely opaque on transillumination, will within three minutes after spraying the middle meatus with this alterant become relatively or perfectly clear. Certainly under such circumstances it is well to delay irrigation, and so far I have *never* had to wash an antrum which has cleared in this manner.

A few remarks on foreign bodies: Some years ago a practitioner observed that he had seen many cases of a cocklebur in a child's larynx, and that he found it a simple matter to extract it in each instance with his finger. One mistake here was that the diagnosis was wrong.

The cockleburrs were not in the larynx, but must have been in the pharynx. Furthermore, the insertion of a finger in the respiratory (or alimentary) tract for diagnosis of a foreign body is obviously a dangerous procedure and cannot be justified under any conditions. In this connection, foreign bodies in the nose were vastly better left to the ministrations of a hand that has been trained to remove them. Unskilled fingers are almost certain to force such a body into still further obscurity, perhaps even causing aspiration into the lungs whence it is much more difficult (and expensive) to remove it. Much of the same is true of foreign bodies in the external auditory meatus, and it is astonishing how difficult it often is to make such a diagnosis.

Lastly I report one of my own miserable failures. A young man was admitted with a closed left eye and considerable tenderness and edema over the left frontal sinus which was cloudy on X-ray, but showed no evidence of osteomyelitis. Removal of the middle turbinate and opening the left frontal did not give satisfactory relief, although drainage began through the nose. Two days later an orbital abscess was opened with considerable discharge. Because of the fear of meningitis lumbar punctures were done which showed high cell counts but no bacteria. On the eighth day he suddenly ceased breathing. Artificial respiration kept him alive. My consultant, hastily obtained, secured from the nurse a story of unwillingness on the part of the patient to move his right leg, and in two minutes made a diagnosis of brain abscess which I had never considered. The skull was immediately trephined by a general surgeon and a large subdural abscess found in the left temporal region. Death followed in about ten hours.

Disappointment prompts these "lame and impotent conclusions:" We are inclined to stop thinking when once we have made, or childishly believe we have made, a correct diagnosis. We are too opinionated when we find ourselves in a difficult position. We do not use consultation often enough or early enough. One man can't know it all, and fortunately it isn't expected of him. All of which, in the words of that delightful, and perhaps eccentric genius, a member of this society all of his professional

life, and whom many of you knew, Dr. Walter Peyre Porcher, all of which is "simply and evidently and only so!"

DISCUSSION

Dr. Walter Bristow, Columbia:

Dr. Jervey's timely paper deals with conditions which are of practical interest to every practitioner of medicine. He should be commended for calling to our attention mistakes which the Eye, Ear, Nose, and Throat doctors may consider as unpardonable, but which are being made every day.

I would like to emphasize Dr. Jervey's observation about the use of hydrochloric acid in certain forms of pharyngitis or "muscular rheumatism of the throat." Sometimes relief is obtained by the oral administration of hydrochloric acid, the intramuscular injections not being necessary.

In opening a middle ear abscess I always use general anesthesia in all children above two years of age and occasionally in adults. For fifteen years I have used a few whiffs of ethyl chloride for this purpose and have never had cause to regret it. I find ethyl chloride easier to handle and easier to administer than chloroform. It is equally as rapid and is not nearly so often followed by nausea and vomiting.

Dr. Jervey's observation about emergency mastoidectomies should be emphasized. Practically all otologists who understand the pathology of mastoiditis are inclined to wait two or three weeks before opening a mastoid unless symptoms of meningeal irritations appear. To quote Dr. S. J. Kopetsky, "The only reasons for operating upon a mastoid in the middle of the night are financial ones."

Papers such as Dr. Jervey has just presented should be read by every physician who has to deal with the practical problems which are turning up daily in the life of every busy practitioner. Again I wish to commend him upon the timeliness of his subject.

Dr. Jervey, Closing the Discussion:

Mr. President, and gentlemen: I have a word of apology to offer to Dr. Bristow for not having warned him that, because I had to cut my subject down for lack of time, I should not make mention in reading my paper of a paragraph I had written relative to a condition which is frequently seen in persons who have recently been subject to some mild, acute illness. I have reference to the symptoms in the throat which we so often see men and women complaining of—pain on swallowing or a feeling as of a lump in the throat which will not come up and can not be swallowed; a very definite pain and severe pain, as I have reason to know from personal experience. On looking into the throat there is absolutely no pathology to be seen. Yet my experience has taught me that the intramuscular injection of 2 cc. of two per cent hydrochloric-acid solution, in one per cent novocain,

perhaps for one day, perhaps for two, seldom more, will result in almost immediate cure.

I failed also to remark in my paper, for lack of time, that, as regards general anesthesia for middle-ear abscesses I prefer the use of chloroform. It gives a quick, good anesthesia, from which the patient re-

covers without untoward symptoms. All the older men know, and please you remember, that chloroform has to be given slowly, with plenty of air, and that it must not be given with the reckless abandon so often employed in the administration of ether.

COLUMBIA MEDICAL SOCIETY MEETING

The Columbia Medical Society met July 12, 1937. The meeting was called to order by Dr. Bristow at 8:40 P. M. Seventy three members were present. Reading of the minutes of the previous meeting was postponed until the next meeting.

Under clinical cases, Dr. D. S. Black reported that of a patient twenty years old who had oedema of the ear. This patient was a full term primipara and he was suspicious of beginning labor as he had had a similar case twenty years ago, except at that time a tooth was involved. The nurse reported earache at intervals ranging from twenty minutes down to five minutes when she called Dr. Black. Patient had a normal delivery of a normal baby with no pain experience except that of the earache which occurred with each contraction phase of the labor.

Dr. Herndon was then called to the chair and took charge of the Scientific program.

The first paper of the evening was "Malignancy of Thyroid" by Dr. E. J. Losli. Dr. Losli stressed the lower incidence in the South, but stated that it was more common than generally suspected. He gave several interesting case reports and drew the following conclusion: 1) We should dispel the impression that malignancy of the thyroid is a rarity; 2) All nodules are potential malignancies; 3) All specimens should be examined microscopically. The paper was discussed by Drs. Bristow, Plowden and Rodgers. The discussion was closed by Dr. Losli.

The second paper was "Practical Points in the Treatment of Coronary Diseases" by Drs. L. T. Gager and H. D. Coffee. Dr. Gager stressed rest as the basis treatment and for infarctions a low caloric diet. The effect of vasodilators was questionable in his opinion. When medical efforts failed the surgeon was

called upon. Dr. Coffee then gave the technique for his subtotal thyroidectomy. The paper was discussed by Drs. N. B. Heyward, Quattlebaum, and Zemp. Dr. Gager closed the discussion.

Dr. Bristow announced that there would be no business meeting in July.

The scientific part of the program was followed by delightful refreshments in the reading room of the Recreation Building of the Veterans Hospital.

J. McMahan Davis, M. D., Secretary.

RIDGE MEDICAL SOCIETY MEETING

The Ridge Medical Society met the twenty first of June with a good attendance.

Dr. O. D. Garvin, District Health Officer, reported six cases of typhoid fever in the lower portion of Saluda County.

Dr. A. T. Neeley, of Newberry, gave an instructive talk on intubation in laryngeal diphtheria and illustrated by giving reports of a few cases.

Dr. Thos. E. Madden, of Columbia, read an interesting and instructive paper on encephalitis. He also exhibited pictures of a case of post vascular encephalitis with an excellent description of the symptoms, causes, prognosis, and treatment. He said this case was the only one reported in South Carolina. The first case reported was in 1921. Holland has the most cases of all of the countries. The United States has only thirty seven reported cases.

Supper was served in The Rutland Hotel. Dr. J. R. McCormick, of Columbia, honored the Society with his presence.

The Ladies Auxiliary met with Mrs. E. C. Ridgell.

The descendants of the late Dr. W. H. Timmerman had a reunion at Leigler's Mill since this meeting.

P. A. Brunson, President
O. D. Garvin, Sec. Pro Tem

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AUGUST, 1937

DR. JULIUS H. TAYLOR RESIGNS AS PRESIDENT OF THE SOUTH CAROLINA MEDICAL ASSOCIATION

On the advice of his physician Dr. Taylor retired from the office of President of the South Carolina Medical Association on July 30. This announcement will be received with the keenest regret by every member of the Association. Dr. Taylor had for many years been an active

worker for the best interests of his profession not only in the State of South Carolina but throughout the South. Dr. Taylor had held many offices of distinction in organized medicine, and his elevation to the Presidency of the State Medical Association was a crowning honor well deserved. It is hoped that by being relieved from the responsibility as head of the medical profession of the State this step will militate toward the recovery of Dr. Taylor's health.

DR. L. M. STOKES OF WALTERBORO BECOMES PRESIDENT OF THE SOUTH CAROLINA MEDICAL ASSOCIATION

On the resignation of Dr. Julius H. Taylor, of Columbia, as President of the South Carolina Medical Association Dr. L. M. Stokes, of Walterboro, Vice President, assumes the duties of the office. Dr. Stokes is well qualified to fill this position. He comes from a progressive section of the State and from a growing medical center and withal an important division of the organized set up of the South Carolina Medical Association, namely, the First District. There has long been an unwritten custom to honor different sections of the State with the Presidency of the South Carolina Medical Association, and this is the first instance in which this particular locality has been so recognized. We present herewith a brief sketch of our new President.

Leonidas M. Stokes, son of Alfred E. Stokes and Annie E. Hill, was born in Colleton County on an ancestral plantation near the Edisto River, April 6, 1879. He attended the public schools of Walterboro and received his A.B. Degree in 1902 from the University of South Carolina. After graduating from the Medical College of the State of South Carolina in 1906 he began the practice of the profession of medicine in Walterboro. In 1907 he was married to Miss Eugenie Lucas of Walterboro, South Carolina. After sixteen years in the general practice of medicine and surgery he spent six months in the New York Post Graduate School and hospital, paying special attention to eye, ear, nose, and throat. He was a medical member of the local board during the World War. Dr. Stokes has held many honors, among them being Chief of Staff of the Charles Es'Dorn Hospital, Walter-

boro, S. C.; President of the Colleton County Medical Society; President of the Coastal Medical Society; member of the State Board of Medical Examiners; and Vice President of the South Carolina Medical Association. He has been actively identified with the health of the community and has served as Chairman of the Board of Health for the town of Walterboro and as Health Physician for many years.

PIEDMONT POST GRADUATE CLINICAL ASSEMBLY

One of the most active organizations of the South Atlantic States is the Post Graduate course conducted at Anderson each year. The date this year has been fixed for September 8, 9, and 10. The preliminary program discloses an unusually attractive series of lectures. Each year special stress is laid on some one phase of medical practice, in order that there may be a logical sequence covering most of the problems met by the practitioner in this section of the country. The founders of the Assembly in their plans provided for most of the teachers to come from the medical schools of the South Atlantic States. Each year a new medical school has been added to the well known institutions already cooperating. In this connection it may be said that diseases of the chest will be emphasized particularly, and outstanding teachers have been invited to discuss these problems.

Dr. Kenneth M. Lynch, of the Medical College of the State of South Carolina, will lead off on the afternoon of September 8 on The Pathogenesis of Tuberculosis. Dr. David T. Smith, Associate Professor of Medicine at Duke University and Director of the Department of Chest Diseases, will speak on The Diagnosis and Treatment of Chronic Pulmonary Infections Which Simulate Tuberculosis. Then Dr. John M. Preston, Clinician in charge of the new X-ray traveling unit of the South Carolina Tuberculosis Sanatorium, will demonstrate the workings of his clinic.

On September 9 there will be a joint meeting with the South Carolina Chapter of the Southern Surgical Congress. Dr. Frank K. Boland of Atlanta, Professor of Clinical Surgery at Emory University, will have as his subject,

Treatment after Laparotomy. Dr. Marion C. Pruitt of Atlanta will discuss The Diagnosis and Treatment of Common Diseases of the Ano-Rectum. Then Dr. A. G. Brenizer, the eminent surgeon of Charlotte, will present Down the Gastro-Intestinal Tract with Camera and Tools, Lantern Slides, Moving Pictures. On the evening of September 9 there will be a banquet, and among other features always enjoyable Dr. Boland will speak on Crawford Long and the Discovery of Ether Anesthesia. Dr. Boland probably knows more about the history of ether anesthesia than any other living student of the subject.

On September 10 there will be prominent speakers on obstetrics, pediatrics, and perhaps other every day subjects.

The officers of the Assembly wish it clearly understood that this great privilege in our midst has been designed to benefit physicians in all of the nearby states. There will be a very small registration fee to provide for the printing of programs, etc. The attendance every year reaches approximately the one hundred mark, and this year this number should be considerably increased. The Headquarters of the Assembly will be at the John C. Calhoun Hotel. The lectures will be given at the new auditorium of the Anderson County Hospital, which has every convenience for teaching purposes. Where possible, interesting clinical cases will be presented.

SUMMER THOUGHTS

It has not been so long since doctors experienced a dread of the change of season, for there evidently was much greater responsibility on the practitioner during some seasons over others. Not so many years ago it was almost impossible for a physician to leave his practice in the summer time and enjoy a well earned vacation. If in general practice, he was almost overwhelmed with cases of typhoid fever and other intestinal disorders, notably diarrhea and dysentery in infancy. In almost any community where there is a proper regard for sanitation and immunizations the doctor may very easily leave his practice in the summer for a brief rest up, for these scourges have been greatly minimized.

In the early Transactions of the South Carolina Medical Association there were many papers calling attention to seasonal maladies. One of the most difficult of control was that of malaria. We visualize the conquering of this disease also in the not far distant future.

There have been significant changes in the type of practice met with by the average doctor today. In almost every small town the modern doctor maintains a well equipped office, where multitudes of patients he once visited in their homes come. This has been brought about by good roads, rapid transit, and an enlarged service on the part of the well trained physician. Indeed, many of these offices are small hospitals with trained nurses, X-ray and laboratory facilities, and often a few beds. The holocaust of automobile accidents has now come on the scene, and practically every doctor is faced with emergency calls and must therefore make some provision for them. In a sense probably these emergencies are seasonal. At least they appear to be the result often of holiday events, week end events, and perhaps there is a summer peak to them. Suffice it to say that in all candor this is one of the most urgent problems before the medical profession and the public.

So far this summer there have been some unusual happenings in medicine. Cancer has come in for a spectacular interest. Yale University has just announced a donation of ten million dollars for research on cancer. Dr. George Walker, who died recently in Baltimore, and who was one of the outstanding urologists of the world and a former South Carolinian, left his entire fortune of more than a quarter million for the study of cancer. These studies will probably begin in September. Then the President has just signed a Bill creating a fund of seven hundred thousand dollars to be expended by the Public Health Service in creating an institute for the study of cancer and provision made for annual appropriations of a like amount or more. Then the Duponts of Delaware have provided a fund of sixty million dollars for the benefit of crippled children, and Dr. Shands of Duke University has just been selected to inaugurate the movement.

In this issue of the Journal there is a thought-

ful paper by Dr. J. W. Jervey, Jr., which embodies much sane advice for the practitioner. Some of the diseases referred to are not so prevalent in the summer, it is true, but the principles involved in their diagnosis and treatment as brought out in the paper should be present with us every day. A distinguished professor of pediatrics recently remarked that if the average doctor should become more familiar with the findings of the otoscope and the microscope in the examination of the urine, he would be rendering a splendid service and perhaps not find it necessary to call in the pediatrician very often or the otologist only on rare occasions. The key note of the paper referred to, while conservative, is clearly a plea for a correct diagnosis and then a careful plan of attack. We may not expect upper respiratory infections in the summer, but they do happen and may be overlooked. Anyway there is a trend now not to over-treat these infections summer or winter.

There may be, and probably are, too many medical conventions for the doctor to attend in the summer time. They are not strictly speaking vacations for the busy doctor, but evidently he often so considers them. Just how he is to orientate himself in the maze of society meetings and sandwich in a real vacation is probably not easily solved.

Much interest has been aroused by a report published in the New York Times, July 14 of Professor Harold F. Clark, of the Department of Economics, Teachers College, Columbia University, and a staff of research workers who spent eight years in the study of the income of the professions. The doctor heads the list of sixteen occupations as to his income. The working life span is estimated at forty two years, and the doctor has received one hundred and eight thousand dollars. Law comes next, then dentistry and engineering and so on down the list. The report would seem to agree that while the well established professions may be overcrowded, they still offer the most attractive incomes over a life span of years, and young people may well continue to enter them with the probability of a satisfactory experience.

This is the time when many young men

and women have their plans well under way for entering the medical schools of the country. There is an impression that to be accepted in any Class A medical school one must be a paragon physically, mentally, financially, and educationally. There is some truth in this, but much misinformation. There is an idea that only an applicant with an A. B. or B. S. degree has a good chance to get into a Class A medical school, but that is not so. There appears to be only one medical school that requires one of these degrees absolutely. The fact is, though, that perhaps fifty per cent of the applicants are now so qualified. There are many good students who stand well throughout their medical course whose preparation in the pre-medical course has been two and three years only. There are many applicants who try to secure admission to many different schools with the hope that at least one will receive them. There is now on the part of the American Medical College Association a fairly accurate check-up of these men. The intelligence test and the

personal interview have become of significant importance in admitting students, though there are many exceptions. While there are probably several thousand more applicants to enter the medical schools than can be accepted, there would seem to be ample room yet for the thoroughly prepared student with some funds available and good health. Incidentally, there is a much greater concern for the health of the medical student than was formerly the case. There have been so many tragic breakdowns that a change of attitude has come about in this regard. It is worthy of comment that the tide of young people turning towards medicine and some of the other professions varies considerably with economic trends. In some respects this is unfortunate but perhaps cannot be avoided.

At the moment, so far as this summer is concerned, there does not seem to be any outward evidence on the part of this Congress to take drastic steps to change the type of the practice of medicine in this country.

CORRESPONDENCE

Wedgefield, S. C.
July 20, 1937

Dr. E. A. Hines

Seneca, S. C.

My Dear Dr. Hines;

Now that I can no longer meet you face to face or touch elbows with you, I am with you at our meetings in spirit and thought, and think of you so often that I just want to write and express my appreciation for what you are doing, and congratulate our Association on having you to serve us.

One fine April morning in 1891 I left my quiet country home inspired by heredity to be in closer touch with organized medicine and made my way to Anderson to attend the meeting of the Medical Association. There I saw very few familiar faces, but the atmosphere was inspiring and every minute of the meeting was enjoyed. These were days when Transactions were being published. Later we saw the advent of a

modest Journal which existed during the passing of years through many changes of personnel until the dawn of a new era when the present Secretary-Editor was placed in charge. Since that time it has grown by leaps and bounds until today it is as good as the best publication of its kind, one of which every reader should be proud.

Keep up the good work, brother, for those of us who appreciate and enjoy it, also for those who disavow its principles or are strangers to them.

With warm personal regards, I remain,

Faithful and fraternally yours,

F. M. Dwight

Note: Dr. Dwight is an Honorary Fellow and now retired from practice, but he keeps up his interest in the Association and the Journal. Dr. Dwight was for many years a Councilor from the 7th District and served on the First Publication Committee of the Journal.

Editor.

GASTRO-ENTEROLOGY AND PROCTOLOGY

BY W. T. BROCKMAN, M.D., GREENVILLE, S. C.

RECTAL PROLAPSE AND HEMORRHOIDS

When do you treat by injection and why? When do you operate and why? These questions are frequently asked by patients and physicians. One answer could be age, physical condition of the patient, and economic status of patient must be considered. Another answer could be, We operate for painful rectal conditions or when hemorrhoids are complicated by anal ulcers, thrombosis, etc. Still another answer could be, We treat by injection business men who refuse to take time off, elderly patients or the youthful patients, and we may add those that are afraid of surgery and are biased and prejudiced because of having heard or known of some relative or friend having suffered severe pain following rectal surgery.

Fifteen years ago it was a daily experience to hear some patient relate how an uncle had been ruined and had no control of his bowels, or had suffered such torture following a pile operation, that he wanted me to know in the beginning no surgery for him. There has been a marked change in the public's attitude towards Rectal Surgery during the last decade, but we occasionally find a scary patient that will go into a nightmare at the thought of surgery of rectum. I have been told over and over of an acquaintance that bled to death following pile operation. These tales may have been true or false, but nevertheless the patient was scared.

Another answer could be, We treat by injection that unfortunate class with a Whitehead deformity. This is a condition where the rectal mucosa prolapses into a tumor or ring of protruding bowel encircling the anal canal outside, leaking mucus, and serous discharge, soiling patient's undies, becoming traumatized and bleeding, a painful sagging mass, or if not a deformity following the old out dated operation, then a contracted pencil size anal canal, all of which aided and abetted the innocent laity

to greater fear of Rectal Surgery. Was the laity justified in its honest prejudices?

It is true, too, that the injection treatment of hemorrhoids has not been free of bias and prejudice by medical men. Many of us can remember the advertising quack; the itinerant pile doctor that injected our patients with a 30 per cent to 50 per cent phenol solution, and how he produced an enormous dangerous slough in some, and cured others spectacularly. The older physicians saw enough of the bleeding, sloughing, and abscess complications, to cause medical men to continue some bias until this day. Was the Medical Society justified in its bias? I say both sides had ample reasons to be prejudiced, but I warn you that unless regular ethical medical men accept the injection method of treating selected types of internal hemorrhoids and rectal prolapse in children, we will make a mistake.

In many sections of our country the various cults are attempting to use the method. They can only destroy it. It should be owned and manned by orthodox medicine as one of its agents in relieving distress and discomfort. It is not a cure all, but the advertising cult will say it is and abuse and destroy it. All specialities of medicine and surgery have advanced beyond the dream of our fathers during the last decade. Proctology is advancing. It is bringing up the rear.

When do you treat by injection?

Mrs. D. age 37; occupation, domestic; C. C. Bleeding hemorrhoids.

History: The bleeding has been daily and constant for past year. Six months prior to my seeing her, she was placed in hospital in nearby city, and given three blood transfusions over a period of three weeks. Returning home to bed for a month, was given liver extract in the muscle and by mouth. Bleeding returned periodically with gradual increasing volume at stool. She came to me, hemoglobin 30 per cent; red cell count 1,800,000. I advised the injection treatment every three days in the hospital. She never bled after the first injection. On tonics,

*Read before the Greenville County Medical Society, Greenville, July 5, 1937.

liver extracts and iron, she made a dramatic recovery to normal health and strength.

It is specific for bleeding internal hemorrhoids, and rectal prolapse in children, and should be the surgeon's first choice in cases of secondary anemia; also as a diagnostic agent in determining the source of rectal bleeding. Patient's physical condition was a chief contributory factor in deciding this case.

Age is a deciding factor. Baby boy; age 2 yrs. History of having prolapsed or protruded the entire lower rectum at every stool for several months. The extrusion was the size of a hen egg and caused discomfort and crying until the mother could reduce this tumor. No history of diarrhea.

Treatment: Patient was treated by injection into four anal quadrants high up above internal sphincter muscle once each week. Buttocks strapped with adhesive strips leaving opening for stool.

Results: No protrusion after first treatment. Straps removed after five days, baby cured after three injections. Age influenced our choice as to remedy to be given.

Economic status:

Mr. L. Age 50: Occupation, Superintendent Cotton Mill; C. C. Protruding prolapsing hemorrhoids. History: For several years hemorrhoids would protrude at stool and easily reduced. In time the protrusion began to occur while patient was on his feet supervising his work. The extruded mass brought on reflex backache, depressed mental attitude and irritability of patient. He was treated by injection giving heavy doses from one and one half to three C C at first treatment. No protrusion after first treatment. Injection at five day intervals with gradual reduction in amount of fluid injected. Results: Patient clinically cured, happy that he could remain on his job where installation of new machinery was in progress. When Do You Operate And Why?

Mrs. L. Age 39; Occupation, Domestic; C. C. Pain at stool. History: For three months patient had suffered pain at stool with increasing intensity. She had been nervous and unfit for social or domestic duties. She was admitted to the hospital in a nearby city and treated for nervousness for three weeks. She was thoroughly examined except in anal canal, the examina-

tion being by glove finger. In Hanes position with anal margin drawn apart by an assistant I could see a dime size ulcer hidden behind a prolapsed anal crypt on the posterior anal margin. Anal ulcers or fissures are easily overlooked by going past the ulcer before we look. She was operated on and healed within three weeks. Recovery complete; all nervousness gone.

When Do We Operate And Why?

Mrs. H. Age 37: Occupation Domestic; C. C. Protruding hemorrhoids; History; Patient felt a protrusion at stool only three weeks before coming to see me. Some discomfort following defecation, this continued daily with inability to reduce the tumor and slight discomfort, no bleeding. I operated by ligation excision and suture, excision of diseased crypts.

Very little after pain, no complication. Patient dismissed at the end of three weeks. Comment: I vaccinated this patient against fistula in ano. This lady was operated because it is more permanent and more satisfactory. She was desirous of getting over with it in shorter time.

Modern Rectal Surgery is safe and much less painful than of old, and in short much more satisfactory to the surgeon. It can be done under sacral or spinal anaesthesia. I prefer sacral anaesthesia except in the extreme nervous type when a general anaesthetic is to be preferred.

Why Do We Operate?

Because the anal crypts are often infected and can be removed along with hemorrhoids. A clean surgical procedure is vaccinating against rectal abscess and fistula, and in removing anal pathology we can often cure constipation produced by reflex spasticity of the colon etc., as well as the obstruction in the anal canal. All in all, modern Rectal Surgery is far away from the old crude operations of twenty years ago.

Summary or Conclusions:

1. The injection method of treating rectal diseases or conditions is a part of the armamentarium of the Proctologist. It is the method of choice in Procidentia Recti in children.

2. It is a valuable palliative remedy in patients who for economic reasons will not or possibly cannot take time off for surgery.

3. It is a specific for bleeding hemorrhoids.

4. Operation for removal of hemorrhoids with complications such as anal ulcer, cryptitis, or thrombosis, is the method of first choice, and marked improvement in surgical technique has greatly lessened the post operative pain and aided in removing fear and dread of rectal

surgery.

5. The excision of infected anal crypts at time of doing hemorrhoidectomy has prevented many complications of rectal abscess and fistula in ano and at the same time corrected bowel habit of constipation.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

“VARIOUS ASPECTS OF THYROID DISEASE”

At the meeting of the American Association for the Study of Goiter held in Detroit in June, thyroid and parathyroid diseases were discussed in their various aspects. Rather than to report in detail on any individual paper, an attempt will be made to report briefly on several which would be of most general interest.

Dr. Hertz, of Boston, reported on the use of iodine in the treatment of mild hyperthyroidism and concluded that by this treatment a small percentage of such cases could be kept under control and operation avoided. In the discussion that followed it was generally agreed that iodine should not be used in this manner, as the small number of good results is far overbalanced by the harm done in most cases by postponing relief by operation. It was further pointed out that some cases become distinctly worse upon continuous iodine medication, and also that there are no criteria by which one can tell which cases will respond favorably. On the whole this method of trying to obtain a cure in hyperthyroidism was condemned and decried.

Parathyroid gland transplants by means of tissue culture in which the blood serum of the recipient is used as the medium have not been as successful as they gave promise of being. Several observers—Dr. Lahey, of Boston, and Dr. Coller, of Ann Arbor, reported failures in all their cases. The picture may not be as dark as appears from these reports, as Dr. Stone, of Baltimore, who first described the method, is reported to still consider that the results have been successful in some of his

cases. Unfortunately, he was not present at the meeting. It is to be hoped that he is correct, because if so we have at least a partial solution to a vexing problem. It was generally agreed that those cases of tetany, even if severe, could be kept under control with a high calcium and vitamin D, and low phosphorous intake. The tendency was to dispense with the use of parathormone, as being both unnecessary and at times unsatisfactory. Some cases could not be kept under control as long as it was used. Great emphasis was placed upon the avoidance of tetany by not injuring or removing the parathyroids.

Recurrent hyperthyroidism was recognized as a definite problem which is practically limited to the exophthalmic type of goiter, seldom occurring after operations for nodular goiter. Its incidence depends to a great extent upon the amount of thyroid tissue left at operation, though the tendency was toward conservatism in this regard, due to the danger of tetany and recurrent laryngeal nerve injury. Other factors in recurrence are infections, serious illnesses, and psychic trauma. A particularly important factor is a constitutional diathesis to the disease. A true recurrence must be distinguished from a persistency of the disease, the result of not removing sufficient gland, a retropharyngeal projection at the upper pole being commonly overlooked.

X-ray as a form of treatment did not receive much discussion. It was considered as causing a partial remission of the symptoms but seldom effecting a complete cure.

Emphasis was placed upon the use of multiple stage operations as a means of lowering the mortality in bad risk cases, due to the

severity of the disease, senility, technical difficulties at operation, and other causes. In some cases the second lobe is removed during the same hospital admission.

In discussing the basal metabolic test, it was brought out that it is subject to many errors, technical and otherwise—so much so that a single test is often inadequate—it being advisable to repeat it until 2 or 3 consecutive readings approximate each other. It must be interpreted always in the light of other findings. Dr.

Boothby, of the Mayo Clinic, gave a statistical report in which he pointed out that in a small percentage of cases a basal metabolic rate above normal is found in the absence of hyperthyroidism and a normal basal metabolic rate in the presence of hyperthyroidism. This applied to cases of the so-called exophthalmic type. The nodular goiters not infrequently have a harmful effect, especially upon the heart, without causing an elevation of the basal metabolic rate.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

THE RELATIONSHIP OF ANTENATAL CARE AND ALLEVIATION OF PAIN IN LABOR

Much is spoken and written concerning the benefits of antenatal care to both patient and doctor. It is claimed by some and with good reason that the only important true advance in obstetrical art in the past twenty-five years is in the matter of antenatal care. Statistics can be marshaled to demonstrate its value in reducing mortality and morbidity. Careful conscientious medical supervision throughout pregnancy allows the doctor to familiarize himself with any constitutional or functional defect which the patient may have. It gives the doctor opportunity to follow the development of the fetus and to guard against complications in the mother, and if they do occur, to begin treatment early. It allows him in most instances to plan the labor and to be prepared for interference should this be necessary.

There is much in current literature, both medical and non-medical, on the subject of the alleviation of pain in childbirth. The profession is making an honest effort to develop safe and workable methods to reduce or destroy the agony of parturition. On the other hand, lay writers are quick to grasp all new methods of pain relief reported, long before they are tried and proven, and they attempt by vigorous propaganda to force upon the profession methods with which they are unfamiliar and con-

cerning the safety of which they are not satisfied.

But in all the writing and talking about prenatal care and about relief of pain in labor, there is one phase of each which is rarely mentioned and less often stressed, namely, the relationship which exists between them.

Any observant obstetrician whose practice includes cases which have been under his attentive care for several months and also cases which have not had this prolonged professional contact with him realizes the difference in the attitude toward labor exhibited by the two types. The former as a rule look forward to labor with hope and without great fear, and the latter, especially if it is a first labor, are uneasy and anxious.

Hypnotism has been suggested and used successfully to a limited extent to prevent recollection of the events and discomforts of labor. This is but an extreme degree of mental influence exerted by a physician upon his patient. This type of treatment is not available to most of us, and if it were, it is questionable whether or not it would be desirable for extensive use.

Such is not the case with the mental influence which can be exerted upon his patient by a physician during the months of prenatal care. This is safe and widely applicable.

The association of doctor and patient allows the doctor to search out her fears and allay them. He has an opportunity to counteract the

influence of well meaning, but indiscreet, friends who go to great pains to warn the expectant mother of the horrors of labor and to recite in great detail every obstetrical tragedy of which they have heard. As I write, patient after patient comes to mind, where the greatest benefit I rendered her during the antenatal period was to reestablish calmness in outlook, to banish unreasonable fears, and to make it possible for her to enter labor reassured that she would not be allowed to suffer unnecessary pain, and with a profoundly trusting confidence that I would make everything all right. It is a child-like faith almost like that of which

religious leaders speak, and it is effective in actually lessening the discomforts of labor, and in preventing accidents and in making meddlesome interference less likely. Where such calmness and such fortitude have been established, there is much lessened need of drug analgesics. They are not called for so early and the dosage required is not so great. The pain differential between the more civilized woman and her who is lower in the social scale is definitely lessened, and they react to labors more nearly alike.

The value of this phase of medical care of expectant mothers should be more generally recognized.

THE UROLOGICAL ASSOCIATION OF SOUTH CAROLINA

REPORT ON THE MEETING OF THE AMERICAN UROLOGICAL ASSOCIATION

Columbia, S. C.
July 27, 1937

Dr. E. A. Hines,
Editor of the Journal of the S. C. Medical
Association,
Seneca, S. C.
Dear Dr. Hines:

Your readers may be interested in my impression of the recent annual meeting of the American Urological Association held in Minneapolis the last week in June.

On my trip I had a good ring-side seat at the Louis-Braddock fight. I think Louis fought a careful, not very aggressive battle until his big opening came. He was thoroughly trained to avoid running into Braddock's right glove. You remember Schmelling whipped Louis with his right hand punches; so naturally and properly Joe was on the avoidance end if possible of punches from the right of his opponent. He kept Braddock back with constant left hand harrassing and mildly damaging, short, almost just wrist flipping, punches to Braddock's face.

Braddock was badly off with his right hand timing. Time after time he missed Joe's head

always by the same distance. The crowd yelled, "Hit a few inches lower next time," for Louis was always ducking just lower than Braddock's aim. At last Louis had a short quick opening just right to end the fight.

Braddock might have had a good stout "fighting heart," but he lacked "something" in his legs and arms and head, that "something" someone must have to stop Joe Louis.

We physicians know that the human body decreases in performing physically perfect actions requiring stamina, co-ordination, timing and reaction swiftness. We know we lose with each year, say after twenty-five, especially if we have had long "lay-off" rest periods. That is the whole story. Louis is approaching the peak of his prime and Braddock has for several years been coasting without much physical effort down into the valley of the "has-beens."

Minneapolis impressed me as being a good size town of very friendly people. Dr. William Jones, of Columbia, is doing quite well there, confining his practice to surgery. He gave me an excellent view of the city and somewhat of an intimate insight into the folks who live there. I was delighted with everything "but" the awful hardness of their water. We South Carolinians should appreciate our pure, soft

water, for hard water is an every minute handicap and annoyance.

Receiving certification from the American Urological Board of Examinations is still very prominent in the minds of many men who confine their practice to this specialty. The Examining Board will continue to be very busy for several years to come.

The high-light of the scientific meeting was the question of urinary tract infections. We had a symposium of pyelonephritis and a special paper from Dr. Braasch on this subject. There was another symposium on the infected prostate; hydro-nephrosis and renal tumors received much discussion.

To summarize, I would say that great emphasis was laid on the importance of thorough bacteriological studies in urinary tract infections. We must know accurately the source and causative germ to accurately and scientifically direct our treatment. For example, the cocci group will often respond to neo-salvarsan and the bacillary group are helped or cured with mandelic acid.

Sulfanilamide received a great deal of comment. It apparently will prove to be a most valuable drug with which to fight urinary sepsis. It is worthy of note that Dr. Hugh Wyman, of this city, had been using sulfanilamide for over two months before Dr. Colston came out in "Time Magazine" with his comments. Dr. Wyman had about arrived at some definite conclusions, having used the drug on fifty some odd patients and was preparing to report his impressions at just about the time Dr. Colston published his results. Our conclusions, however, very accurately parallel the opinion of others who have used the drug. We feel that large doses should be pushed for the first week and then continued with smaller doses for the following week, then two more weeks of only four tablets a day. We have had a number of

mild to moderate reactions. All should be told that they will feel let-down and much below par. Some will have skin reactions and fever. One patient had a rather severe but only temporary jaundice. I believe twelve tablets for the first four days, then ten tablets for four days followed with eight a day for a week and continuing with four a day until a total month is completed, is a safe dose regime to follow. Of course, the patient and his urine should be examined daily and the drug stopped temporarily if fever or a skin rash or jaundice occur. The haemoglobin should also be recorded every few days.

Drainage in the face of urinary tract infections was stressed by Dr. Hunner. I am proud that I read a paper to our State Association several years ago on the subject of the importance of drainage of infections.

Any urinary tract sepsis, as evidenced by pus in the urine, requires a complete urinary tract study with the X-Ray and Cystoscope. I have a patient in the hospital this minute, whose kidney I had to remove last week, who has had pus in her urine for years. She has even been cystoscoped, but no X-Ray was taken until I examined her and found a large staghorn calculus completely filling the kidney pelvis and calices, accompanied by such a total and long-standing impairment of the kidney function that it was necessary to remove that kidney.

I fear that if the use of sulfanilamide prevents complete urological studies it will do more harm than good.

I spent a couple of days at the Mayo Clinic and had the pleasure of seeing several of our South Carolina "boys" who are held in high esteem there. I refer particularly to Drs. Hines, Buie, and Wagener. They were all very busy but took time off to be cordial and interested in their home State.

Marion H. Wyman, M.D.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

Case of Drs. Cain and Linton

ABSTRACT NO. 339 (37147)

Student Blair (presenting case):

A twenty year old white woman, single, admitted 1-3-37, died 1-8-37. Two histories obtained on this case.

(A) Persistent upper abdominal pain for 2 months, pain more noticeable in lower abdomen for 1 week. No bowel movement for 7 days. Vomiting everything taken for several days, but no vomiting for 3 days before admission. Had eaten practically nothing for 10 days. Fever for several days, no chills. No urinary symptoms. Menses 13x28x4-5 days. LMP 12-5-37. Began to menstruate again the day of admission but stopped.

(B) Menses on Oct. 8, 1936 normal. About Nov. 20-24 following intercourse, passed a piece of tissue about 1½x1 inch, pinkish in color. Vaginal bleeding has not ceased since, of a "dirty brown color and had a foul odor." Chills early in December, became feverish and vomited about Dec. 25, 1936.

Exam: Toxic, dehydrated, anemic woman. Temp. 102, pulse 132, resp 34, BP 120/68. Skin hot and dry. Eyes, ears, nose, throat negative. Lymph glands not palpable. Breasts soft, no masses. Chest clear. No abnormal heart findings. Abdomen: "Distended. Marked rigidity over entire abdomen, most marked over right side. Tender generally over abdomen, but most marked over appendiceal area. No masses felt. Some audible peristalsis over left side of abdomen." Rectal: "A mass, probably uterus, palpable in cul-de-sac." Pelvic Exam (by history-taker A): "Vagina admits one finger. Some bloody discharge. Cervix feels edematous. Marked tenderness on manipulation of cervix. Due to lack of relaxation, examination not satisfactory. No masses felt." Pelvic Exam. (by history taker B): "Easy two-finger examination. Cervix soft and patent. Uterus seems enlarged and boggy. Exquisite tenderness thruout. Dirty vaginal bleeding." Remainder of Exam. negative.

Lab: Urine (voided) reddish-yellow: Sp. Gr. 1.018; alb 1 plus; sugar, acetone and casts neg.; leukocytes 5-6 per HPF; RBC 2 plus. Blood (1-3-37; 1-6-37): Hb 70 per cent; RBC -; WBC 12400, 12700; polys 91 percent, 89 percent; lymphs 8 per cent, 11 per cent. Blood Kolmer and Kline neg.

Course: Temp. persistently elevated 100-103 except for day before death, when it fell to 98.4, followed by rise to 104 on day of death. Pulse generally 120-140, rising to 156 on day of death. Resp. usually 26-36, rising to 52 just before death. Levin tube

passed on 1-4-37 and left in place. Water taken by mouth and usually retained, but vomited occasionally in spite of duodenal tube. Abdominal distension lessened but no normal stools were passed. Enemata usually resulted in obtaining a yellow-stained fluid and some flatus. On 1-4-37 passed some dark green fluid containing blood and mucus per rectum. Given blood transfusion (150 cc.) on 1-6-37. Patient appeared to improve. On 1-8-37 at 1:30 AM was awakened by a loud "pop" in her left side. When seen later in morning of 1-8-37, patient was very much worse, abdomen markedly distended, shifting dullness in flanks. Pulse became imperceptible, facies cyanotic. Ceased to breathe at 12:25 PM of 1-8-37.

Dr. Cain (conducting): Mr. Hayes, will you analyze the case?

Student Hayes: We have a young woman whose history and positive findings are mostly related to the abdomen. In the first history, the lack of bowel movements and the vomiting suggest intestinal obstruction. In the second history, the passage of a piece of pink tissue through the vagina, and the subsequent dirty vaginal bleeding suggest septic abortion. The findings on abdominal examination seem to be those of generalized peritonitis. To bear out the idea of intestinal obstruction the one examiner noted active peristalsis, and to bear out the idea of septic abortion, the other examiner found an enlarged and boggy uterus.

I believe that the patient had a septic abortion and an acute intestinal obstruction. The location and cause of the obstruction I do not know.

Dr. Cain: Do you think that you have both diagnoses to explain the symptoms?

Student Hayes: The septic abortion could have been followed by peritonitis, but peritonitis of this type seldom lasts as long as this one did. Too, the ileus which frequently goes with intestinal obstruction, and causes the symptoms of obstruction, should not be associated with active peristalsis, since ileus is a paralytic state of the bowel.

Dr. Cain: In the first history, the upper abdominal pain was of about two months' duration. According to her second history, if she was pregnant, she must have become pregnant about two months before her admission. Can you think of anything which might have occurred during early pregnancy that would permit you to tie together the two conflicting histories?

Student Hayes: Pyelitis could possibly tie the two together, but the abstract records show that there were no urinary symptoms. I can't think of any condition that would satisfactorily explain the upper abdominal pain in very early pregnancy.

Dr. Cain: Then you believe that her symptoms in October were due to an incomplete intestinal obstruction, and that her final picture is one of septic abortion, and so are forced to make two diagnoses.

Mr. Sweatman, what do you think of the case.

Student Sweatman: I believe that septic abortion with peritonitis is the most likely diagnosis. It is possible that she had a tubal pregnancy, that frequently gives vague upper abdominal pains.

Dr. Cain: The upper abdominal pains in tubal pregnancy are not usually present before rupture or tubal abortion. I gather that you believe that the first history was erroneous, and that the girl was trying to cover up her true symptoms.

Mr. Rogers, will you discuss the case?

Student Rogers: I don't believe that we can doubt one history more than the other, and hence we must consider both possibilities. Since the two histories cannot be tied together, I believe only one of them is accurate. From History "A", the case sounds like one of chronic intestinal obstruction, which could have been followed by peritonitis to give the terminal picture. From History "B", it sounds like septic abortion, which could also have been followed by peritonitis. Which of the two is accurate, I cannot say on the basis of the findings.

Dr. Cain: Just suppose the second history is correct. The upper abdominal pain which the patient had in October was not so severe that she had to stop working. Not infrequently patients get all sorts of vague symptoms referable to the abdomen and elsewhere during pregnancy.

Mr. Scott, why do you think this patient's bowels did not move? She was taking enemas at home before she was brought to the hospital.

Student Scott: She had hardly eaten for ten days, and hence she didn't have much in her bowels to move. And women are frequently constipated (laughter).

Dr. Cain: Well, what do you think caused her to vomit?

Student Scott: I believe it was the toxemia of her infection, and the ileus of peritonitis which caused her to vomit, and which caused the enemas to be unsuccessful.

Dr. Cain: Dr. Linton, do you have something to say about the case?

Dr. Linton: I saw this case on the surgical ward. At that time she had extreme tenderness and rigidity over the entire abdomen, and I was unable to make out any greater rigidity in one part than in another. There was some blood in her vagina, and she had been bleeding that day. Finding that, I became somewhat suspicious, and the second history was then obtained. I tried very hard not to make my questions leading as I realized that a very sick patient would be apt to admit almost anything to keep from being annoyed. That history was as accurate as I could make it.

I thought the patient had endometritis, followed

by parametritis, peritonitis and adynamic ileus. We were quite confident that the intestinal tract was obstructed, but thought it was ileus causing the obstruction. Because of that opinion, we did not operate, but put her on the more conservative treatment, duodenal drainage.

Dr. Cain: Dr. Linton has told you more of the "inside story" of this case. I saw the patient after he had seen her, agreed with his diagnosis, and accepted her on the gynecology service. We treated her on turpentine stipes and she seemed to get better on this regime, although she did not evacuate normally. The "pop" that occurred the day of death was not only heard by the patient herself, but the patient in the next bed said she heard it, too.

Dr. Lynch: We can't show you the whole specimen upon which this illness was based grossly, and we must resort to microscopic demonstration. This twenty year old girl had cancer of the splenic flexure of the colon which caused an annular constriction there, with almost complete occlusion of the lumen of the bowel. The cancer was of only small extent, and the specimen was completely used up in preparing microscopic sections.

Here you see (micro-projections) the normal epithelial glands of the mucosa of the colon, and right beside these, this abnormal growth of epithelial cells, quite active, with hyperchromatic nuclei, and with extension of the tumor cells through the submucosa, into the muscularis and serosal coat.

Proximal to the occlusion of the gut by the cancer, the bowel was greatly dilated, its walls very friable, and there was an extensive ulceration of the mucosa. Distal to the point of obstruction the bowel was collapsed and not ulcerated. There was a generalized purulent peritonitis of some duration, as is frequently seen with intestinal obstruction, even without perforation of the bowel. The peritonitis was becoming organized, and the assumption is that she had peritonitis before she came into the hospital.

The ulcerations of the colon proximal to the obstruction are remarkably similar, grossly, to the ulcerations of amoebic dysentery, but there were no amoebas to be found in the sections. Such ulcerations are very commonly found in cases of intestinal obstruction, and apparently are due to the stasis of the fecal circulation, with opportunity for infection to invade the walls of the bowel from the lumen. In this greatly dilated portion, right in the base of an ulcer, there was an opening in the bowel, through which fecal material passed freely into the peritoneal cavity. This hole could conceivably have been the result of the embalmer's work, as he had used a trocar in the upper abdomen. But with the history of the sudden loud "pop", which was heard by the patient herself and also by the next patient on the ward, followed by the rapid development of shock and death, I believe we must admit that that hole was probably a spontaneous rupture of the already greatly distended bowel, through an ulcer. The loudness of the noise seems quite remarkable, however.

If the patient had been the only one who heard it, I would have doubted it, but the story of the next patient seems hard to refute.

There was no evident of the patient ever having been pregnant. Her uterus was quite small, as you can see here (demonstrating autopsy specimens), and there was no corpus luteum in either ovary to suggest a recent pregnancy. It is, of course, possible that she was pregnant two months ago, but certainly there is no evidence of it now, and there is no evidence of there having been infection of the uterus.

I believe that the second story of this patient was entirely untrue, and probably built up in this manner; the patient had made herself liable to pregnancy by her own admission, and she was afraid that she was pregnant. With this fear, and with the development of symptoms at about the same time, she was probably convinced in her own mind that her symptoms were related to pregnancy, and was willing and anxious to give such a history. The piece of "tissue" was probably a small clot of menstrual blood.

The bleeding at the time of admission to the hospital was probably her normal menstruation. Microscopic sections of the uterus show a small amount of blood in the endometrium, but no other lesions.

Another thing of interest in this case is the occurrence of cancer at the early age of twenty. If this patient had consulted a physician a month or so earlier, her symptoms would have led to an investigation of the gastro-intestinal tract by X-ray and barium enema, and she would have come to operation. Her tumor could have been resected; there were no metastases in the liver or regional lymph nodes.

One aspect of the diagnosis of this case was rather neglected, and that was the observation of the case. The nurse recorded on her part of the chart that the enemas failed to have effect, that the stool contained blood and mucus, but these things either did not come to the attention of the physicians, or else they failed to note them on the progress record. In any case where the history and examination leave great doubt as to the diagnosis, the observation and progress record should be done very carefully; in this case the progress record leans very strongly towards the diagnosis of obstruction, and the evidence might have been even stronger if the

physicians had pursued some of the leads more thoroughly.

Dr. Cain: Another lesson to be learned from this case is this: when a single woman makes herself liable to pregnancy, her story is almost always unreliable. And further, amenorrhoea does not necessarily mean pregnancy. If this young woman had been given the benefit of the doubts in the case, she would have been operated, and possibly saved. There is no doubt that we jumped to conclusions too hurriedly.

Aside from that, the diagnosis of carcinoma of the bowel is of interest only because of its rarity in one of this age.

Dr. Lynch: If we are to get anywhere in our fight against cancer, we must never discard the diagnosis of malignant neoplasm just because the age makes it unlikely. That is an obvious lesson.

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INTRAPLEURAL PNEUMOLYSIS — A PROCEDURE IN THE TREATMENT OF CAVERNOUS TUBERCULOSIS

By
Wm. H. PRIOLEAU, M.D., F.A.C.S.
and
W. ATMAR SMITH, M.D.
Charleston, S. C.

In the treatment of pulmonary tuberculosis bed rest and general supportive measures are used so as to enable the body to combat most effectively the disease process. In cavitation or otherwise extensive disease, measures are directed toward the affected lung so as to reduce its function and the space it occupies, favoring the collapse of cavities and the arrest of local lesions. This latter is called collapse therapy. The simplest and most effective form is pneumothorax, when it can be obtained. However, in some cases extensive adhesions between the lung and the chest wall prevent the introduction of air into the pleural cavity. In other cases air is admitted, but certain adhesions prevent the satisfactory collapse of the lung. These adhesions are generally over the most diseased portions and thus often hold open cavities and render the pneumothorax ineffective. In such cases the pneumothorax must be abandoned and resort had to thoracoplasty, or the offending adhesions severed so that a satisfactory compression can be obtained. An open thoracotomy for the purpose is poorly borne by the patient; however, the same object can be accomplished, without widely opening the chest wall, by a procedure called intrapleural pneumolysis.

Pleural adhesions were first divided through a thoracoscope by Jacobeus, of Stockholm, in 1913. He made use of an actual cautery. Since

then the procedure has undergone many modifications, especially in the improvement of the instruments used. The high frequency current has replaced the cautery. In the original method, which is still used by a great many, the thoracoscope and electrode are inserted into the pleural cavity through separate openings. Lately there has been developed a very satisfactory instrument similar to an operating cystoscope which permits the work to be done through one opening. Each has its advantages.

It is variously estimated that about 40 per cent of pneumothoraxes are wholly or partly unsatisfactory due to the presence of adhesions. In some cases the adhesions are so extensive that the pneumothorax has to be abandoned — in others a great many of the adhesions burst and the remaining ones stretch and assume the form of strings or bands. It is these that can be divided. A thorough X-ray examination is made to determine their form and location and whether their division would be beneficial. At times a thoracoscopic examination is necessary for a final decision.

The operating thoracoscope is generally inserted anteriorly, as the most usual site for the adhesions is postero-lateral below the apex. An inspection of the pleural cavity is first made, and it is determined which adhesions are amenable to severing. The presence of blood vessels is no contra-indication, as these are coagulated by the dampened high frequency current. In some adhesions lung tissue is present and care must be taken to avoid it on account of the danger of empyema—this is best avoided by severing the adhesion near the chest wall. Should the adhesions be extensive or the procedure not borne well by the patient, some may be left for a subsequent operation.

Intrapleural pneumolysis is of value only

in so far as it completes a pneumothorax otherwise ineffectual. It should be viewed in this light. The mere presence of adhesions does not warrant its use.

DISCUSSION

Dr. L. Emmett Madden, Columbia:

I have enjoyed hearing Doctor Prioleau and Doctor Smith's paper very much and I think that it should be of utmost interest to all physicians, as it deals with the modern treatment of pulmonary tuberculosis. This disease is the leading cause of death among the age group from fifteen to forty years, and any procedure that helps to reduce the mortality rate in this group should demand the attention of us all.

The outstanding advance in the treatment of pulmonary tuberculosis during the past thirty-five years has been in the development of collapse therapy. Artificial pneumothorax is the simplest and by far the most satisfactory type of collapse therapy which we use. Unfortunately, we are able to induce a pneumothorax in a relatively small percentage of cases with cavitation. And in 35 to 40 per cent of the cases in which we are able to induce pneumothorax we are unable to get a satisfactory result on account of adhesions preventing the closure of the cavity. It is in this type of case that intrapleural pneumolysis is indicated. That intrapleural pneumolysis is not without danger, however, can be readily seen by the results quoted by Fishberg in his book on Pulmonary Tuberculosis published in 1932, in which he states that the mortality rate from the procedure approaches 20 per cent. He arrived at this mortality rate from a review of Jacobsen's series of cases. There is practically no danger in cutting long strand-like adhesions; however, the short band-like adhesions present an entirely different problem, for they often contain lung tissue, bronchioles, and part of the cavity. Any portion of these structures may be opened with serious results. The band-like adhesions are the ones that usually prevent satisfactory results. The complications that are encountered are: first, spread of infection; second, effusions; third, bronchial fistulas with pyopneumothorax; fourth, hemorrhage.

The dangers, however, are far outweighed by the good results obtained in satisfactory cases.

Doctor Smith is to be congratulated on the good results obtained with his cases.

Dr. Prioleau, Closing the Discussion:

I wish to thank Dr. Madden for his discussion and particularly for pointing out the fact that the procedure is not devoid of danger. Generally speaking, any procedure which has the power of doing good also has the power of doing harm. On the other hand, if its use is limited to certain types of cases, the danger can be reduced tremendously. Of course, the danger increases very much as you attempt the thicker adhesions and those in which there is not much space between the lung and the chest wall.

I might say that, although we did not feel that our series of cases was large enough to warrant reporting in detail, we have not had any complication except the formation of fluid, which has not proven harmful. We have had subcutaneous emphysema in a few cases. This can generally be prevented by a tight bandage against the puncture wound.

SOME FACTS CONCERNING LIVING GRADUATES OF THE STATE MEDICAL COLLEGE

By

JOSEPH T. MARSHALL, M.D.

Barnwell, S. C.

In a recent article in this journal, certain general information was given concerning the distribution of living graduates of the state medical college in South Carolina. This paper has for its purpose more extended information about these living graduates. Much of this data has been included in tables, the first of which follows. This table indicates the classes containing living graduates, the number in each class now living (1936), their general location, whether South Carolina or elsewhere.

TABLE 1

Class Year	Total No.	No. Dec'd	Living Members		
			Total	In S. C.	OTHER LOCATION
1869	14	13	1	0	N. C. 1
1874	27	25	2	2	
1879	23	22	1		Ga. 1
1880	21	19	2	1	N. C. 1
1881	30	26	4	4	
1882	19	18	1		Okla. 1
1883	18	14	4	1	Fla. 1, Ala. 1, Calif. 1
1884	20	15	5	3	N. C. 1, Mo. 1
1885	17	15	2	2	
1886	20	17	3	3	
1887	18	15	3	3	

1887	17	11	6	5	Fla. 1
1889	25	17	8	5	Ga. 1, N. C. 1, Mass. 1
1890	23	16	7	4	Ga. 1, Md. 1, Fla. 1
1891	15	8	7	7	
1892	12	6	6	5	Ga. 1
1893	12	7	5	5	
1894	19	16	3	1	Ga. 1, Mass. 1
1895	20	11	9	9	
1896	22	14	8	5	Fla. 1, Ill. 1, N. Y. 1
1897	25	13	12	11	N. C. 1
1898	14	9	5	4	N. C. 1
1899	20	14	6	5	Wyo. 1
1900	43	21	22	17	Fla. 2, N. Y. 2, N. C. 1
1901	32	13	19	12	N. C. 1, La. 1, Calif. 1, Ga. 1, N. J. 1
1902	4	1	3	2	Ill. 1
1903	21	8	13	11	Ind. 1, Okla. 1
1904	23	11	12	8	Calif. 2, Ga. 1, Fla. 1
1905	27	6	21	17	N. C. 2, Fla. 1, W. Va. 1
1906	8	3	5	2	N. C. 2, Ga. 1
1907	21	6	15	12	Fla. 3
1908	17	4	13	10	Fla. 1, Vt. 1, Mich. 1
1909	38	7	31	24	Fla. 5, Md. 1, Calif. 1
1910	38	8	30	27	Fla. 2, N. C. 1
1911	49	6	43	34	Fla. 4, Pa. 1, La. 1, N. Y. 1, W. Va. 1, Md. 1
1912	65	11	54	43	Fla. 5, N. C. 3, Md. 2, Ore. 1
1913	30	7	23	18	Ga. 2, N. C. 2, Minn. 1
1914	18	0	18	13	Md. 1, Tex. 1, Calif. 1, Okla. 1, N. J. 1
1915	25	3	22	17	Pa. 1, N. Y. 1, Kan. 1, W. Va. 1, Fla. 1
1916	16	2	14	7	Va. 1, W. Va. 1, N. J. 1, Fla. 1, Md. 1, N. C. 1, Ga. 1
1917	24	3	21	12	Calif. 2, D. C. 2, N. C. 1, Fla. 1, N. Y. 1, N. J. 1, Ia. 1
1918	9	0	9	7	W. Va. 1, Calif. 1
1919	13	2	11	5	Ariz. 1, N. Y. 1, Md. 1, Vt. 1, Fla. 1, Wash. 1
1920	14	1	13	9	N. Y. 2, N. J. 1, Minn. 1
1921	10	1	9	6	Miss. 1, N. C., 1 Md. 1
1922	13	1	12	5	N. C. 2, Ga. 1, Fla. 1, Mass. 1, Neb. 1
1923	25	0	25	15	Ga. 2, Fla. 2, Calif. 2, N. C. 1, Minn. 1, Ohio 1, N. Mex. 1
1924	28	2	26	18	Fla. 2, Mich. 2, N. J. 2, Ky. 1, Alaska 1
1925	35	2	33	17	W. Va. 1, N. Y. 3, N. C. 6, Va. 1, Ala. 1, Fla. 1, Calif. 1, Pa. 1, Ky. 1
1926	38	1	37	20	N. C. 8, N. J. 3, N. Y. 2, Fla. 1, Ohio 1, Ill. 1
1927	33	2	31	18	Ala. 1, Ohio 2, Tenn. 2, N. C. 4, Fla. 1, N. Y. 1, Ga. 1, Va. 1
1928	41	0	41	23	R. I. 2, La. 2, Ala. 2, N. C. 3, Mass. 1, Kan. 1, Tenn. 1, Pa. 1, Minn. 1, Va. 1, N. Y. 1, Utah, 1
1929	26	1	25	16	Ga. 2, Fla. 2, Tenn. 1, N. Y. 1, Ala. 1, N. C. 1, Ohio 1
1930	35	1	34	24	N. Y. 2, Fla. 1, N. C. 1, Ohio 1, Ga. 1, N. J. 1, Wash. 1, Tenn. 1
1931	41	2	39	26	N. Y. 4, N. J. 2, Mass. 2, N. C. 1, Ky. 1, Calif. 1, Ill. 1
1932	33	1	32	21	N. C. 3, N. Y. 2, Ill. 1, Fla. 1, Ore. 1, Ark. 1, Ala. 1, P. I. 1
1933	36	1	35	19	N. C. 5, N. J. 2, N. Y. 2, Ohio 2, Ga. 1, Ala. 1, Mich. 1, Calif. 1, Tenn. 1

1934	31	1	30	18	Ill. 1, Pa. 2, N. C. 3, D. C. 1, Mass. 1, Ga. 2, N. J. 1, N. Y. 1.
1935	41	0	41	19	N. C. 3, Ill. 2, N. Y. 3, Mass. 1, D. C. 3, Calif. 3, N. J. 2, Md. 1, Mich. 1, Ala. 1.
1936	32	0	32	17	N. Y. 6, Pa. 2, Fla. 2, Ga. 1, N. C. 1, La. 1, D. C. 1, Md. 1, Mass. 1.
Totals	1484	480	1004	674	325

In the preceding table it will be noted that there are six classes with all members living. There are eight classes having all living members residing in South Carolina. Six members are not included in the table, since no addresses are available. The class of 1912 has the largest number of living graduates, 54. The oldest

living graduate of the state medical college graduated 67 years ago.

The classes with living graduates are next grouped to show the activities or fields of medicine engaged in. For the sake of convenience, the classes are grouped by decades, except for the last six years.

TABLE 2

Activities of Living Graduates by Groups

Class Group	Gen. Prac.	Spec.	Gov't. Serv.	Inact.	Faculty Med. Col.	Hosp. Serv.	Other
(1869-1879)	1	0	0	3	0	0	0
(1880-1889)	20	5	1	11	2	0	0
(1890-1899)	47	11	1	9	6	0	0
(1900-1909)	115	27	3	7	9	0	1
(1910-1919)	167	52	19	7	11	0	0
(1920-1929)	158	78	10	2	2	0	1
(1930-1936)	111	13	20	0	3	90	0
Totals	619	186	54	39	33	90	2

In the group of graduates in government service, there are six active medical officers in the Army; retired Army officers number three. There are fourteen active medical officers in the Navy; the retired list has one officer. In the U. S. Public Health Service, there are two active, and one retired officer. One medical missionary is listed, being in the 1920-29 group. One state legislator is in the 1900-09 group. Two graduates are editors of medical journals, one the editor of a state medical association journal, and the other the editor-in-chief of a national public health journal. Two graduates are engaged in the practice of dentistry. There are six whose status could not be determined. Most of these are women who have changed their names (and perhaps occupation) by marriage.

A fairly large group is composed of graduates who are members of the faculties of seven different medical schools in this country. The list includes professors, associate and assistant pro-

fessors. One member is the dean of a medical college. Departments or subjects covered by this group include: surgery, medicine, urology, pediatrics, public health administration, preventive medicine, clinical pathology, ophthalmology and otology, anatomy, bacteriology, chemistry, obstetrics and gynecology, tuberculosis, dermatology.

In government service not already referred to, there are 18 graduates in the Veterans Administration; one graduate in the Indian Service; and 12 graduates in service with the Civilian Conservation Corps. The last class group includes 90 graduates in hospital service. These include residents and internes.

While the foregoing data regarding the living graduates of the state medical college are sketchy and quite general, it is hoped that such a presentation of this information may arouse further interest among graduates and friends of the medical school as to other accomplishments of its graduates.

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J. D. Guess, M.D.-----Greenville, S. C.

Urology

The S. C. Urological Society

Röntgenology

R. B. Taft, M.D.-----Charleston, S. C.

Pathology and Bacteriology

H. H. Plowden, M.D.-----Columbia, S. C.

Surgery

Wm. H. Prioleau, M.D., F.A.C.S.-----Charleston, S. C.

Eye, Ear, Nose and Throat

J. F. Townsend, M.D., F.A.C.S.-----Charleston, S. C.

Dermatology and Syphilology

J. Richard Allison, M.D.-----Columbia, S. C.

Gastro-Enterology and Proctology

W. T. Brockman, M.D.-----Greenville, S. C.

Nervous and Mental Diseases

E. L. Horger, M.D.---State Hospital, Columbia, S. C.

Medical Reserve Corps

Col. J. E. Daniel, Med. Res.-----Greenville, S. C.

Public Health

B. F. Wyman, M.D.-----Columbia, S. C.

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SEPTEMBER, 1937

MEDICAL EXAMINATION OF SCHOOL CHILDREN

The school child seems to be to some extent the medically neglected member of the family. The infant gets his periodic examination and preventive treatment. The runabout and pre-school children have in recent years enjoyed a renewed interest in their welfare. After the flurry of activity in preparation for school sub-

sides, the pediatrician or family physician to a large degree delegates his prerogatives to the school doctor.

School physicians are probably generally conscientious and competent, but they are relatively scarce, and school children are relatively abundant. It is small wonder that the type of medical care and supervision in school systems is usually inadequate. No physician can tell a great deal about a child in the few minutes allowed for each pupil and in the absence of the parent or an adequate history. Not infrequently the work of the school physician comes dangerously close to that of a judge of the condition of the tonsils, and obviously the sweeping condemnation of these often innocent structures is illfounded and unjust.

Why shouldn't the family physician make the annual examination of the school child at his office? The truth is that the child would get in most cases an examination which would be more complete and more valuable and well worth the price of an office visit. One serious objection to this method lies in the unfortunate tendency of some physicians to shun this type of work or to sign a statement without adequate examination. Yet these are probably the same doctors who periodically howl that their work is being taken away from them by health departments and other agencies. These same agencies are most desirous of securing proper care for the child, whether from his own physician or from a school medical service, and if they are wise, have no wish to use mass methods if individual care is given.

At the last meeting of the American Medical Association a resolution was passed that school authorities be requested to keep on the record cards the name of each pupil's physician, and to make arrangements so that the examination of the children be delegated to the family physician, who would fill out forms provided by the school and cover such points as seem advisable. If this reasonable suggestion is well taken, it should divert a large amount of legitimate work to the office, to the considerable benefit of school, child, and physician; but if the physician does not do his part, the arrangement will necessarily collapse.

J. I. W.

PLANS FOR ALUMNI BUILDING AT THE MEDICAL COLLEGE

A hundred years ago the process of medical education in this country was a very different one from the type of instruction given today. Medical schools could be conducted with little more equipment than a rostrum for the professor, who probably covered several major branches, and seats for the students. Experimental methods were not in general use, and laboratory equipment was neither used nor needed.

With the rapid development of the immense detail of present day medical knowledge and instruction, the medical school must have a large number of instructors and a large amount of space in order to cover the things which are essential to the preparation of the physician for modern practice. Schools have grown gradually larger as time has passed, until now some of them are enormous institutions heavily staffed and extensively built. Perhaps these modern colleges do not turn out men any better equipped for medicine than were the graduates of the old schools for the practice of their day, but medical knowledge is now so wide and the opportunities for extension are so great that an up-to-date school must of necessity be big enough to offer space for modern teaching and equipment.

Our own medical school has produced with modest equipment many a competent and recognized physician, but for years it has worked under the difficulties of a limited staff and inadequate space. This year an increased appropriation by the legislature has brought some immediate relief and the hope of a continued increase in funds to the point where the College can not only meet all official requirements but also develop into an outstanding medical educational center. While the larger amount of money enables the college to increase its staff, no provisions have been made for an increase of space, which now becomes extremely crowded.

Several years ago the alumni of the Medical College made an excellent start toward raising funds for the construction of a building which should be evidence of their sincere interest in the encouragement of medical education. Finan-

cial crises put an overwhelming obstacle in the way of the success of this attempt. If the campaign begun then can be resumed and carried to a successful finish, there is little doubt that this effort and sacrifice by the graduates and friends of the college would be most influential toward persuading the legislature, and perhaps others, of the real desire and need for better public support of the institution. South Carolina definitely needs her school to furnish her with competent medical men, and she needs a school that is more than a Class A institution, one which will give South Carolina physicians as broad a preparation as any in the country. A new building for teaching purposes would give immense aid to the improvements in personnel made possible by state funds, and would encourage the state to aid its physicians to furnish better service to the people of South Carolina.
J.I.W.

FOUNDER'S DAY AT THE COLLEGE

The annual celebration of Founder's Day at the Medical College has been set for November 4th of this year. The program will be arranged very much as it was last year, and will include clinics and demonstrations during the morning and afternoon and a banquet in the evening.

Dr. Irving Cutter, Dean and Associate Professor of Medicine of Northwestern University, Chicago, will be the chief speaker of the day and at the banquet. Other well known men will contribute to the program. As usual, a large attendance is expected and the profession of the state is cordially invited. A more complete program will be announced later.

J.I.W.

SOME NEW FEATURES IN THE JOURNAL

During the fall and winter months medical men become more concerned about the various journals to which they subscribe and it is therefore a pleasure to announce some changes in our Journal. In this issue the Department of Obstetrics and Gynecology under the able direction of Dr. J. D. Guess of Greenville opens up a question and answer column. We urge our readers to give this new feature their loyal support.

We have long had an extremely important Department of Pathological Conferences but now the Journal undertakes a new Department of Therapy under the direction of our Assistant Editor, Dr. J. I. Waring of Charleston. The first installment appears in this issue and is a very timely contribution from the Roper Hospital, one of the great teaching centers of the country. Many physicians wish to know just how the newer treatment of diabetes is carried out in such an institution and also there

is a wide spread desire on the part of the practitioner to learn more about the serum treatment of pneumonia. Our Assistant Editor plans to call on other hospitals and teaching centers for support of this new venture.

Owing to the great advances in orthopedic surgery, the opening of a new Department on that specialty will begin in the October issue. Dr. Austin T. Moore of Columbia, has been elected as the Associate Editor to preside over this Department.

RIDGE MEDICAL SOCIETY MEETING

The Ridge Medical Society met the sixteenth of August 1937 at 7:40 o'clock in the residence of Dr. and Mrs. W. P. Timmerman, Batesburg, S. C. as guests of the Ridge Medical Auxiliary which furnished an elegant repast. The attendance was good.

Dr. Brunson exhibited an elderly white man with a number of tumors on various parts of his body.

Dr. R. H. Timmerman exhibited an unusual case of eczema on a young white woman.

Dr. W. W. King reported a case of a man with pericardial pain who seemed near dissolution. He gave quite a good description of his various symptoms. The man was operated upon and the diagnosis made was apoplexy of the pancreas. He has been sick for six weeks. Some questions were asked as to diabetes, etc. The prognosis wasn't announced.

Dr. Paul Culbreath of Ellenton read an excellent paper on Congenital Hemolytic Jaundice and exhibited twin boys with the affliction. All of this was interesting and instructive. He also reported a case of supra pubic cystotomy in which he found and removed pieces of lead pencil, etc. The case was a young woman and the entrance of the pencil in the bladder was probably due to masturbation.

Dr. Carl B. Epps reported having removed a large short pencil from the bladder of a woman with no knowledge as to why it was placed there.

Dr. Carl B. Epps read a very interesting

paper on What Does Your Profession Mean To You? This was read before the Medical Society and The Ladies Auxiliary and was highly commended.

A unanimous vote of thanks was given Dr. Culbreath and Dr. Epps for their excellent addresses and The Ladies Auxiliary for their excellent meal.

W. P. Timmerman, M. D., Secretary

COASTAL MEDICAL SOCIETY MEETING

The Coastal Medical Society held its monthly meeting at Beaufort, S. C., on June 17, 1937. A very delightful and enjoyable boat trip was planned by our President, Dr. Westcot Black of Beaufort.

After leaving the Standard Oil Dock, the President called the meeting to order and the minutes of the previous meeting was read and approved.

Dr. Frank Cain of Charleston, S. C., Councilor for the First District, delivered a very interesting talk on "Hospital Insurance" which was thoroughly discussed. He also read a very good paper on "Cancer of the Cervix Uteri." This paper was submitted to the S. C. Medical Journal for publication.

Dr. I. G. Linton of Charleston made a very interesting talk on "Basal Analgesia Prior to Operation."

Several business items were discussed after which the meeting was adjourned and a delightful dinner served.

A. R. Johnston, M. D., Secretary

Anderson, A Post Graduate Center

By Chamber of Commerce

Anderson is no stranger to most of those physicians who contemplate attending the Piedmont Post-Graduate Clinical Assembly here this month. Those few who have not visited this city no doubt have friends or relatives here.

Anderson is not an old city, comparatively speaking. It was founded in 1828 when an act of the legislature divided the old Pendleton district into three counties: Anderson, Oconee, and Pickens. The town of Pendleton was not centrally located; so it was decided to establish a county seat 12 miles to the westward. Thus did Anderson come into being.

Anderson and Anderson county are named for a hero of the American Revolution: General Robert Anderson. General Anderson lived four miles north of Pendleton, not far distant from the present site of Clemson College. No monument or marker stands above his grave, for it is not known where he is buried.

During its 109 years of existence, Anderson has shown steady growth in wealth, industry, and population. Greatest strides were made, however, between 1920 and 1930. Census figures reveal that Anderson's percentage of growth during that period was the second largest in South Carolina. Columbia led by a one-point margin.

A showing equally as good is anticipated for the 1930-40 period. Hundreds of new houses have been built here already this year, and several suburban developments are now under way. Postoffice department figures show that more than 30,000 persons receive mail service within a two mile radius of the local postoffice.

The county has a population of 80,949, according to the 1930 census. Seventy-two percent of the population is white and 99½ percent American born. The city of Anderson is 754 feet above sea level. The average precipitation is 49.81 inches, which is well distributed throughout the year.

For a 15 year period, Anderson has averaged each year 233 days of sunshine. Prostrations from heat are unknown, as the nearness of the Blue Ridge mountains tends to modify excessively high temperatures.

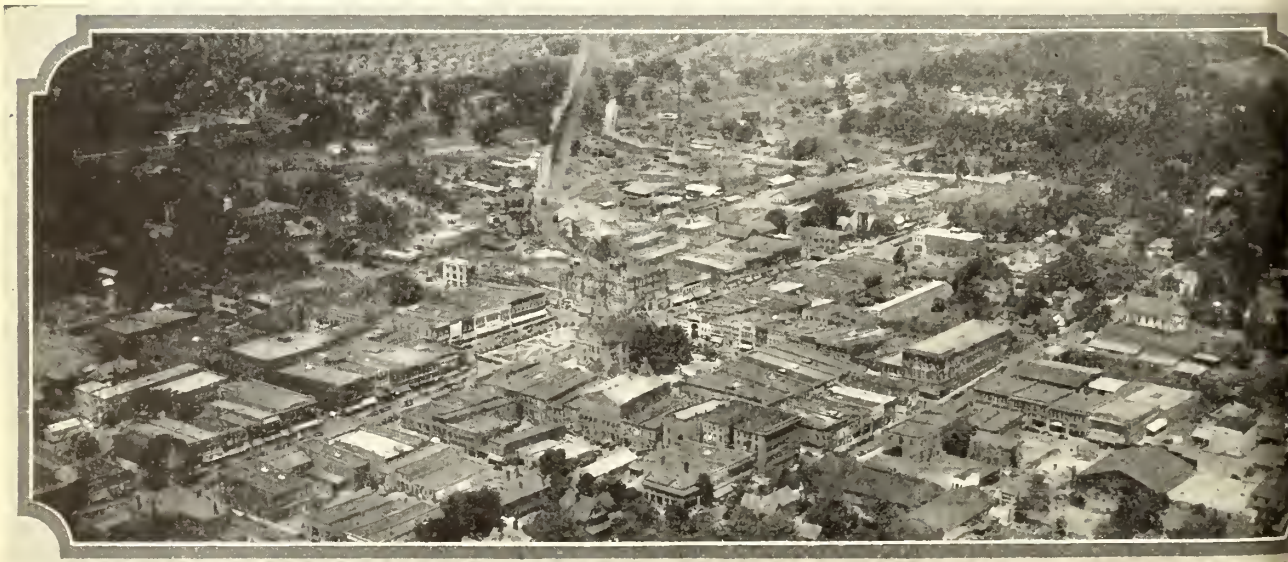
Anderson has one state and one national bank and one savings and loan organization. The combined totals of the two banks, capital, deposits, and resources are as follows:

CAPITAL: \$1,000,000

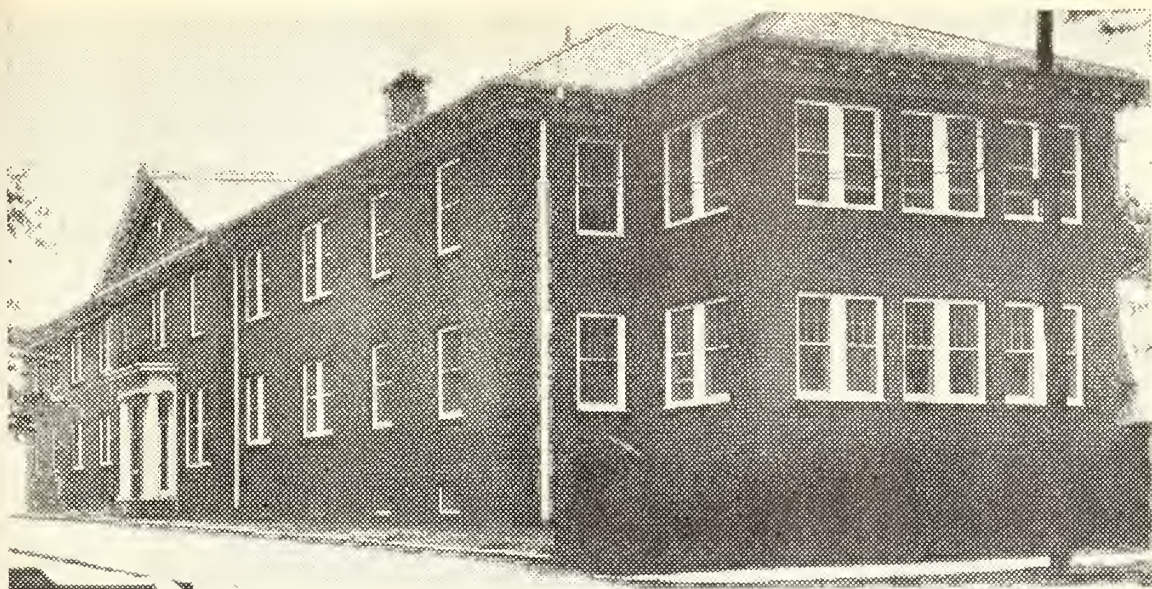
DEPOSITS: \$16,462,246.46

RESOURCES: \$19,583.03

More than 38 years ago, Anderson was given the name of the Electric City. This city was the first in the South to have an unlimited



Aerial View of Anderson, S. C.



Nurses Home and Auditorium

supply of hydro-electric power available for every purpose. It has been largely due to this cheap power that Anderson has developed into an industrial center of considerable importance.

Serving Anderson are three railroads: the Blue Ridge, the Charleston & Western Carolina and the Piedmont & Northern. In addition, several bus lines and a score or more of motor transportation lines service this city. Street cars have been replaced by modern motor buses.

In and around the city are located nine large cotton mills. In the county there are 18 with a total payroll of \$6,500,000. The total investment in textile manufacturing plants is approximately \$35,000,000.

From the standpoint of education, Anderson is of top rank in South Carolina. A recent report of the county superintendent of education shows that the enrollment in the city schools is as follows: total number of white pupils, 5,209; total negro pupils, 1,603. These figures indicate an increase of almost 100 percent in school enrollment in the past 10 years.

Anderson has three high schools, seven grammar schools, and a college. The courses offered in the Anderson high schools fill almost every requirement of the student. Besides the general course, the schools offer manual

training, domestic science, physics, chemistry, foreign languages, bookkeeping, stenography, and typewriting.

Anderson is the home of Anderson College, South Carolina's first fully organized junior college. Anderson College is a member of the American Association of Junior Colleges and is officially accredited by other colleges and universities.

There are a total of 8,200 farms in Anderson county. About 51 percent of the population is located on farms. The total number of farms operated by owners is 2,005, or 25 percent. The remainder is operated by tenants or share croppers. The total cultivated acres is 373, 489 acres, or 77 percent of the entire acreage.

Anderson county has a well balanced farming program. Its main cash crop is cotton, supplemented with vegetables, fruits, live stock, dairy products, corn, and small grain. The value of poultry and poultry products produced in this county is over \$500,000 a year.

The Anderson Fair, upper South Carolina and Georgia's annual big event, is staged by the Anderson Chamber of Commerce and provides a form of entertainment and recreation that is enjoyed by more than 100,000 persons each year. This fall the fair will be held November 1 to 6.



Anderson County Hospital

NEWS ITEMS

ANNOUNCEMENTS

The Urological Association of South Carolina will hold its annual meeting in Columbia, S. C., October 13. The meeting starts at four o'clock in the afternoon and will end after the banquet. Arrangements have been made to get two nationally known urologists to speak on the program and they will present urological subjects of interest to the profession in general. An invitation is extended to all the physicians in South Carolina to be present at this meeting. The location of the meeting and the hour will enable any physician over the state to attend. Further details will be given in the next issue of the Journal.

The Southern Tuberculosis Conference and the Southern Sanatorium Association will hold a joint meeting at the John Marshall Hotel,

Richmond, Virginia, September 29, 30, and October 1. The program embraces an X-Ray clinic, a symposium on Collapse Therapy, Symposium on Non-Tuberculosis Lung Conditions, a discussion of the Initial Management of Pulmonary Tuberculosis, Tuberculosis in the Negro, Childhood Tuberculosis, Tuberculosis Research and various topics dealing with the social aspects of the disease.

Among the distinguished speakers to be heard at this meeting are Dr. Champneys Holmes, of Atlanta, who will speak on Pneumothorax; Dr. Frank S. Johns, on Phrenic Nerve Surgery and Allied Operations; Dr. Louis Hamman, of Baltimore on Pulmonary Neoplasms; Dr. Leroy Gardner, of Saranac Lake, on Pneumonoconiosis; Dr. David T. Smith, of Durham, on Mycotic Lung Infection;

(Continued on page 227)

DEPARTMENT OF THERAPY

CASE REPORTS

By Henry C. Robertson, M. D.

Roper Hospital, Charleston, S. C.

Case 1.—

A white man of 32 years, a known diabetic for four years, had been on a diet of C 120, P 100, F 100, and taking "regular" insulin 15 units before each meal. He tested his urine at home for sugar, and for the past two months had been spilling an increasing amount. On his last visit to clinic urinalysis sugar 4-plus, acetone 2-plus, though he was symptom-free and had been maintaining his normal weight of 143 pounds.

Blood sugar on admission (fasting) was 288 mg. He was put on insulin 20 U followed by orange juice 240 cc. q 8 h., and on the afternoon of the second day the urine was sugar-free. He was then put on a diet of C 120, P 100, F 100, and insulin 20 U t.i.d.a.c. The urine sugar promptly jumped to 4-plus, acetone neg., and the dose of insulin was changed to 30 U t.i.d. Blood sugar (fasting) 282 mg.

When 30 U of insulin was given, the patient developed symptoms of hypoglycemia about 2 hours after breakfast and after lunch. Despite this, urinalysis prior to the next meal showed 3-4 plus sugar; this occurred whether or not carbohydrate was administered to relieve the symptoms of hypoglycemia. Apparently this patient was particularly susceptible to the action of insulin, which was strong and rapid in its action but whose effect rapidly wore off. The case seemed a very definite indication for the use of the slowly acting protamine insulin. Accordingly the patient was given 25 U of "regular" insulin and 50 U of protamine insulin 20 minutes before breakfast. The two were given in different sites so the regular insulin might not react with the protamine and form 75 U all protamine insulin. From the day following the institution of this treatment all specimens of urine were sugar-free except the overnight specimen. Fasting blood sugar while the patient was still on regular insulin was 253 mg.; two days after being put on protamine insulin supplemented with an injection of regular in-

sulin, fasting blood sugar was 133 mg. As the overnight urine continued to contain sugar, an injection of 25 U of protamine insulin was given before supper, and the regular insulin was gradually decreased and discontinued.

Dosage having been cut down to 30 U before breakfast and 20 U before supper, the urine having been free from sugar for four days, the patient was discharged. He has since been followed in clinic: feels fine, is maintaining his weight, urine is sugar-free, and he has not had any symptoms of hypoglycemia at any time.

Case 2.—

A white boy of 14 years had been perfectly well until the night before, when he complained of headache at bedtime; slept well that night, but was taken the next day with pain under the right scapula, increased by a slight non-productive cough; temperature at noon was 103. Examination at this time was negative; the patient seemed slightly drowsy, T. 103.4, P. 130, R 24. White count was 21,500 with polys 89 per cent; urine showed acetone, otherwise normal. A working diagnosis was made of pneumonia. No supportive or symptomatic treatment was used at this time, and the patient had a good night, sleeping most of the time.

Next morning there was dullness, tubular breathing, and egophony over the right upper lobe. An occasional cough was non-productive; so a cotton applicator inserted in the back of the throat was sent to the laboratory for examination for pneumococci and typing. Temperature, pulse, and respiration were about the same as on admission. Within an hour the laboratory reported Type I pneumococcus.

The following treatment was ordered: soft diet, with fluids forced to 3000 cc.; caffeine-sodium-benzoate gr viiss q 4 h.; oxygen by nasal catheter 2 1-2 liters per minute; codeine sulphate gr. 1-2 if necessary for pain; ox-gall enema if abdomen became distended; 20,000 units anti-pneumococcic serum q 8 h. for four doses, the first dose to be preceded by intradermal test to determine sensitivity to the serum, the remainder to be given intravenously.

As there was no reaction to the intradermal injection, 20,000 units of the serum was ad-

ministered intravenously at 11 A.M. At noon T 103.6, at 2 P.M. 105, at 6 P.M. 103.6. There was no untoward reaction to the serum. At 7 P.M. he received his second 20,000 units. Temp at 11 P.M. 100.8. At 5 A.M. and 12:30 P. M. serum was given intravenously as before. Temp. was 98.6 at 7 A.M., less than 24 hours after serum was started, and except for one

reading of 99.4 was normal for the rest of his stay in the hospital. The signs over the upper lobe of the right lung rapidly cleared, and by the fifth hospital day nothing abnormal could be detected. The patient generally progressed remarkably well, was allowed up on the 6th day and went home on the 10th.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

QUERIES AND ANSWERS

Beginning in this issue, the editor of this department will offer a column of queries and answers which will deal with questions in obstetrics. The column is being started at the request of the Committee on Maternal Welfare of the State Association, and with the approval of the editor-in-chief of the Journal.

Readers are invited and requested to send questions to the editor at Greenville. In so far as is practicable, the editor, with such assistance as he can command, will attempt to answer questions submitted in this column. All queries should be signed, but only the senders' initials will appear in print. The success of the venture will largely depend upon the interest of the readers and upon the questions submitted. The editor hopes that it will prove to be both interesting and helpful.

To the Editor: How long is it safe to wait for the spontaneous separation and expulsion of the placenta, before attempting manual removal? XYZ.

Answer: There are two potential dangers inherent in retained placenta. The first and most eminent is hemorrhage, and the second is early bacterial invasion of the uterus. Hemorrhage will not occur so long as the placento-uterine attachment is wholly intact. On the other hand, it may be quite severe when there is only partial detachment.

Bacterial invasion proceeds with relative rapidity after delivery, but the invasion is likely to be more rapid when strings of amniotic

membrane protrude from the uterus into and frequently through the vagina. The longer the interval between the birth of the child and manual removal of the placenta, the greater is the danger of serious intra-uterine infection.

The term retained placenta is not a specific one. It includes placenta accreta; placenta adherent by reason of inflammatory conditions of either placenta, decidua, or membranes; detached but incarcerated placenta, by reason of hour-glass contraction of the uterus or because of partial closure of the cervical os; and undetached but normally attached placenta, delay in detachment being due to uterine atony, either from fatigue, prolonged anesthesia, or deep and prolonged analgesia.

Whether or not detachment has occurred can usually be determined. When there has been detachment, the cord has moved down several inches, the uterus is not so globular, but is longer and narrower, a bulge produced by the placenta as it lies in the lower uterine segment can usually be detected above the pubis, and the uterine fundus moves from a position slightly below the umbilicus to one somewhat above.

Coming now to the answer of the question, one must realize that the time interval of waiting can safely vary with the conditions of the case itself and the environment. Manual removal of the placenta may be a major procedure and is always fraught with danger of introducing infection.

A safe rule is to wait two hours after the last attempt at manually expressing the placenta. Normally implanted placenta are most likely

detached by this time, and they will have either been spontaneously expelled or may be easily expressed. If in the meantime bleeding occurs, an attempt should be made to completely detach and express the placenta by Crede's maneuver. If hour-glass contractions of the uterus are recognized as the cause of retention, a few minims of suprarenalin solution given hypodermically will likely relax the contracted uterus allowing expression of the placenta.

If after two hours of waiting, the placenta can not be expressed, it is usually safer to manually attempt its removal than to wait longer. At any rate, the obstetrician should not leave his patient unattended until the placenta has been removed. If upon manual invasion, placenta accreta, which is quite rare, is found, having been recognized by inability to find a plane of cleavage between placenta and uterine wall, no further effort should be made to remove it, but the patient, if not already so, should be hospitalized and hysterectomy performed.

To The Editor: Is routine episiotomy advisable in home deliveries? What are its advantages? What are its dangers? XYZ.

Answer: Generally speaking routine episiotomy is not an advisable procedure in average home deliveries. The simple operation of episiotomy is done for two reasons, first to protect the baby's head from prolonged pounding and compression against an unyielding perineum, and second, where laceration is inevitable,

to direct and perform the division of the perineum so as to protect the anal sphincter from injury.

Both of these are desirable, but there are two dangers in its use. The first is the danger of infection in an open wound, which infection may remain localized or which may spread extensively through the lymphatics to the pelvic structures and beyond. The danger of infection is no greater in similarly placed episiotomy wounds and perineal lacerations, but the former are usually made mediolaterally and the latter usually are median, and there is a greater danger of infections in the former spreading and becoming serious.

The difference in location also accounts for the second danger in episiotomy wounds. Mediolateral wounds have to be more carefully repaired; and if healing does not occur, there is wider gaping of the vaginal orifice and much greater loss of rectal support than in median perineal lacerations. As a matter of fact, unrepaired, healed median lacerations of the perineum, if not too deep, cause little inconvenience or interference with function, and an author recently referred to them as the removal of the disability of nulliparity.

If low forceps have to be used to effect extraction or if deep laceration appears to be inevitable, then the pendulum of good procedure swings the other way, and episiotomy should usually be done.

KERSHAW COUNTY MEDICAL SOCIETY

The Kershaw County Medical Society met at the South Carolina Tuberculosis Sanatorium, State Park, S. C., Wednesday evening, July 14. The doctors were served a fried chicken dinner, after which they joined the patients in the auditorium for the weekly picture show.

After the show they gathered in the sanatorium library, where Dr. Leo Hall presented a paper on "Phrenic Nerve Interruption in Tuberculosis" with lantern slide demonstration. Dr. George C. Battle read a paper on "Intra-Pleural Pneumolysis" accompanied by X-Ray demonstration. Discussion by the various doctors followed after which the meeting adjourned.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"SHOCK"

Shock is a term which has been used in a very indefinite manner to apply to many conditions of lowered vitality, in particular those of more or less sudden origin. This is the result of a lack of understanding of its nature.

Of late, considerable clinical observation and experimental work have resulted in the recognition of a definite clinical syndrome to which the term should properly be limited. It is characterized by a circulating blood volume insufficient to fill the functioning vascular bed. It is described by one author as a circulatory failure of neither cardiac nor vaso-motor origin. This condition is brought about by a reduction in the blood volume from such causes as the loss of fluids in excessive vomiting, diarrhoea, or sweating; exudation from raw surfaces such as empyema cavities and burns; and the leakage of blood fluids into the tissues through injured capillary walls. Expansion of the vascular bed has a similar effect. It is produced by toxins of various nature injuring the vessel walls, and by sympathetic nervous system and endocrine disturbances. Hemorrhage is often a contributing factor, but in itself does not necessarily produce shock. Accordingly shock may be produced by a variety of causes.

The clinical picture of shock is prostration, cold extremities, pinched facies, pulse small, and low blood pressure. It must be differentiated from heart failure, hemorrhage, and syncope of vasomotor origin. Haemoconcentration is particularly characteristic of shock; there is an increase in the haemoglobin and red blood cells. At post mortem examination, the

heart is small, the various organs, except the spleen, are swollen and have ecchymoses, the capillaries and venules are congested, but the arteries are contracted.

Shock is more easily prevented than treated. Loss of blood, and trauma in operations must be reduced to a minimum. Anesthetics must not be too deep or too long. Fear must be allayed—pain relieved—likewise cold, hunger and fatigue. The fluid balance must be preserved. Conditions which injure the capillary walls, such as toxemias of various nature, must be combated, preferably at the source.

In the treatment of shock drugs as such are of limited value; especially is this the case with the so-called stimulants. Adrenalin further constricts the arterioles which are already abnormally constricted. The heart is not at fault, so that medication directed to it is not indicated.

Our main reliance must be upon increasing the blood volume. Glucose and saline solutions given intravenously have an immediate but only temporary effect, as they soon pass out into the tissues. Acacia solutions are not free from danger. The most effective remedy is the transfusion of whole blood. Provided the shock is not too deep, this results in a sustained increase in the pulse volume.

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SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

Hyperglycemia in skin diseases, by J. R. Allison. Columbia. South. M. J. 30:738-742, July, 1937.

If the accepted normal sugar curve is correct, and if certain skin diseases are not in themselves capable of causing a disturbance of the carbohydrate metabolism, then the author's findings indicate that sugar intolerance is a factor in the causation of certain dermatoses . . . and the sugar tolerance test is an important aid in the diagnosis and treatment of these dermatoses.

A review of the treatment of cancer of the breast, by T. H. Martin and A. Willis, Charleston. Review of Tumor Therapy. 1:3-5, June, 1937.

From our present knowledge of the subject it would seem that a combination of methods would be advisable in treating the average case of breast malignancy i.e., pre-operative X-ray therapy followed as soon as possible by surgery.

The status of histological grading and estimation of ray-sensitivity in the prognosis of tumor cases, by H. Wood. Charleston. Review of Tumor Therapy. 1:25-28, July, 1937.

A brief exposition of the principles involved in judging the histological grade and probable ray-sensitivity of malignant tumors, and the distinction between the grade of a tumor and its ray-sensitivity is made. As opposed to the general principle that the higher the grade of a tumor the more ray-sensitive it is, exceptions and contradictions of this principle are pointed out. The proper interpretation and clinical application of these factors in judging case prognosis is stressed.

Cancer of the cervix uteri, by F. G. Cain.

Charleston. Review of Tumor Therapy. 1:39-41, July, 1937.

Education of the public to the necessity of examination and employment of the services of the pathologist in recognition of early cases are the two most important factors upon which we have to depend for the reduction of cancer mortality.

The limitations of artificial pneumothorax, by W. A. Smith. Charleston. Diseases of the Chest. 3:32-33, June, 1937.

Each case of tuberculosis demands individualization in choice of therapeutic procedure. Artificial pneumothorax is the best method of collapse therapy that is available at the present time, but it should be used with discretion.

Arteriovenous aneurysm, by J. T. Quattlebaum. Columbia. A. Heart J. 13:95, January, 1937.

Report of a case with pronounced electrocardiographic changes. Other cases on record having decidedly abnormal electrocardiograms are compared with the present case. Certain clinical features of this case are compared with other cases from the literature.

Incidence of air-borne Fungus Spores, by O. C. Durham. N. Chicago. J. Allergy. 8:480, July, 1937.

Increased interest in fungi as a cause of allergic symptoms has led Durham to review the slides used for a ragweed pollen survey a few years ago. Alternaria spores appear from May to November. Charleston, the only South Carolina station reported, shows a very low incidence of alternaria.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT NO. 341 (38070)

Case of Dr. W. A. Smith

April 16, 1937

Student Corcoran (presenting case):

A 49(?) year old negress, domestic, admitted 2-22-37, died 2-26-37.

Previous admissions: 1914—"pyosalpinx"—operated (Salpingectomy?). 1920—"Uterine Fibroids, Pylitis, Cystitis" (hysterectomy, supravaginal). 1932—"Stricture of Rectum"—dilated. 1933 (OPD)—"Phthisis bulbi"—operation advised.

History: (1932 chart) Gripping pains in lower part of abdomen since operation in 1920, more severe in few weeks before 1932 admission. Bleeding from rectum for several days at that time. Nauseated, but did not vomit. Irregular fever on that admission (98-103) usually normal in AM. BP 140/100. "Stricture about 1-2 inch from anus. Skin tabs."

In 1937, patient brought to hospital in coma. (History from sister). Swelling of face and feet for about 5 weeks before admission worse for fast two weeks, confining patient to bed. Sister did not know if she had been dyspnoeic. Profuse bleeding from rectum for at least one day. Comatose for day of admission, but continued to pass blood per rectum.

Examination: Temp. 94, pulse imperceptible, BP unobtainable, resp. 32. Very anemic, cold. Face edematous. Left cornea opaque, right pupil very small. Exophthalmos (presumably on right). Teeth carious. Anterior cervical lymph nodes palpable. Chest emphysematous, expansion poor. Chest examined anteriorly only because of fear of hemorrhage from rectum: no abnormalities anteriorly. Heart: apparently not enlarged. Apical impulse not felt, apex beat best heard in 5th interspace, 3 1-2 inches from midline. Tones very faint, no murmurs. Arteries thickened. Abdomen: Lower mid-line incision scar. Several pigmented spots. Liver and spleen not felt on light palpation. No rigidity or masses. Bulging in flanks and fluid wave present. "Ulcerated area between vagina and rectum." Rectum not examined. Pitting edema of feet, ankles and legs. Reflexes diminished.

Lab.: Urine (1932) cath., sp. gr. 1.015, alb 2 plus, sugar and acetone neg., hyaline and finely gran. casts 2 plus, leuk. occ., RBC occ., (No urinalysis on 1937 chart) Blood (HB 45 per cent D in 1932) (2-25-37) Hb "unable to read double dilution;" RBC 505,000; WBC 10,000; seg. polys 50 per cent, non-seg. polys 46 per cent, lymphs 4 per cent; achromia, etc., 3-4 plus. Blood chemistry (2-25-37) Urea N 57, creatinin 3 mg. Blood Wassermann 4 plus in 1920, Kolmer and Kline neg. in 1932, not tested 1937.

Course: Temp. did not rise above 96.4 for 36 hours, then, on 2-24, reached 100.5, after which it gradually fell to 96 at death. Pulse almost imperceptible throughout. Resp. generally about 16, falling to 9 before death. On 2-24 the heart sounds were louder and there was a "slight systolic murmur at aortic area and apex. Apex in 6th interspace, 4 1-2 inches from midline (same examiner as above). On 2-25 the BP was 70/48. On 2-25 coarse rales were heard over bases of lungs, breath sounds roughened. Remained comatose. Died at 8:45 PM on 2-26-37.

Dr. Robert Wilson (conducting): Mr. Scott, will you open the discussion in this case?

Student Scott: We have here a woman of slightly more than middle age who has been bleeding from the rectum for several years. Recently the hemorrhage has become very profuse, and she was admitted to the hospital in a moribund state, apparently as a result of the hemorrhage. She had a "stricture" of the rectum in 1932. The patient was in too poor condition on her last admission for her rectum to be examined, and on her admission in 1932, the note is simply that she had a stricture, not describing the feel or appearance of the lesion. Hence I can do no more than guess as to what was the actual lesion in the rectum. Because of her age, I would be inclined to lean towards carcinoma of the rectum.

In 1932 her blood pressure was 140/100 and she had albumin and casts in the urine. On the final admission she was voiding involuntarily and the nurse was apparently unable to get a specimen of urine. On her final admission she had a high urea nitrogen. To me, these findings suggest chronic glomerulonephritis. The edema which was so conspicuous on her final admission may have been a result of nephritis, or it may be edema due to imbalance of the plasma proteins in the blood, such as occasionally occurs with anemia of severe grade such as this one. Cases of uremia frequently have ulceration of the bowel, but to me this is not a case of uremia. The urea nitrogen and creatinine frequently go much higher than this before uremia manifests itself clinically.

Dr. Wilson: Mr. Hope, will you continue the discussion?

Student Hope: This patient has had gripping pains in the abdomen and rectal bleeding for several years. The lesion has apparently produced obstruction of the rectum of some degree. Such a lesion could be either benign or malignant. If malignant, the tumor had probably already been present for some time before 1932, or constriction would not have been so definite. This would be an unusually long course for carcinoma of the rectum. The lesion could be a simple inflammatory stricture, with stasis of the fecal current, and

phagedenic ulceration of the bowel above the level of stricture; these ulcerations could well have been the site of hemorrhage, bleeding occurring from some vessel which was eroded by the ulceration. Certainly the patient's most serious symptoms are due to hemorrhage and secondary anemia.

She also had urinary findings and a slightly elevated blood pressure in 1932, and a moderate nitrogenous retention in 1937, and these seem to indicate nephritis. But I do not believe that her condition on her final admission was one of uremia, for the same reason that Mr. Scott gave. Possibly her coma was due to her extreme anemia.

Her terminal picture seems to me to be one of cardiac failure. Hypertension had probably already placed an extra burden on the heart, and nutrition of the heart muscle would be impaired by the low hemoglobin content of the blood.

Dr. Wilson: In 1932 there seems to have been no attempt made to discover the cause of the stricture. The blood Wassermann was negative at that time.

Mr. Hope, how do you interpret the febrile course in 1932 when this patient was in the hospital for treatment of rectal stricture?

Student Hope: Fever could occur in any sort of inflammatory stricture of the rectum. In spite of the negative Wassermann in 1932, we know that she had a positive Wassermann in 1920, and the stricture could possibly be due to syphilis in spite of the negative Wassermann.

The rectal disease could be tuberculosis, but there is no evidence of tuberculosis elsewhere in the body. There is no definite evidence either for or against the common causes of rectal stricture: lymphogranuloma, tuberculosis, syphilis, gonorrhoeal proctitis or carcinoma.

Dr. Wilson: Mr. Floyd, what do you make out of the case?

Student Floyd: I'm like Mr. Hope; I cannot find anything on the record to suggest what the etiology of the stricture might be. About the only thing we can say definitely is that the patient had bleeding from the rectum, and therefore probably ulceration. Since the lesion was not palpated for fear of increasing the bleeding, we have no idea of the consistency of the lesion to help us in the evaluation of the case.

This patient was apparently all right until after her operation in 1920. It is possible that she had pelvic adhesions following her operation, and that these eventually produced stricture of the rectum. However, my opinion is carcinoma.

I think she also had some kidney damage, but that most of her present symptoms are due to the anemia secondary to hemorrhage.

Dr. Wilson: The final clinical diagnosis was lymphogranuloma with secondary anemia. What do you think of that, Mr. Floyd?

Student Floyd: It might well have been lymphogranuloma, but there is nothing on the record to confirm it.

Dr. Wilson: The case is now open for discussion by the faculty.

Dr. Johnson: I want to comment on the blood chemistry. We have a patient here whose blood pressure was 70/48 at one time during her final admission, and at other times the blood pressure was so low that it could not be recorded. This low blood pressure would interfere greatly with the excretion of nitrogenous products from the kidney, and it is possible that the elevation of the urea nitrogen in this case is due to that alone. She may have kidney disease, but I do not believe that there is anything on the record to conclusively prove that she did.

Dr. Wilson: The extreme anemia will satisfactorily explain the series of events that led up to death. What we must get at are the possible causes of the rectal disease.

Carcinoma, tuberculosis, syphilis and lymphogranuloma must be considered. Syphilis is probably a very uncommon cause of stricture, but any of them could have caused it.

Dr. Lynch: Mr. Hope, suppose you were told that this patient had extensive ulceration of the perineum, vagina, the stump of the cervix and the lower end of the bowel; what would you think of the case then?

Student Hope: Was there lymph gland enlargement?

Dr. Lynch: Yes.

Student Hope: I believe that it would most likely be lymphogranuloma inguinale.

Dr. Lynch: You didn't ask if the lymph gland enlargement was in neck or the femoral region. It was in the abdomen, but not in the inguinal region.

Student Hope: I believe it could still be lymphogranuloma inguinale.

Dr. Lynch: Do you believe that stricture of the rectum from lymphogranuloma is compatible with the massive hemorrhage?

Student Hope: I don't believe that it is necessarily inconsistent.

Dr. Lynch: While not impossible, of course, I think it rather unlikely with lymphogranuloma.

This woman had tuberculosis of the rectum. The disease was sufficiently advanced in 1932 for her to have stricture then that required dilating. Even the slowly growing scirrhus type of carcinoma of the rectum, if far advanced enough in 1932 to cause stricture, would probably not permit the patient to live five more years without treatment.

At what point in her body this patient contracted tuberculosis we cannot say. There was no relic in the lungs of a primary infection there. There was no evidence of tuberculosis except in the rectum, the retro-peritoneal lymph nodes, and in the liver, which was probably infected through the portal vein.

Here you see the rectum (demonstrating autopsy specimens) with the dense fibrosis of the walls, but with very little actual narrowing of the lumen evident at the time of death. This opening up of the previous stricture was apparently due to extensive ulceration and erosion. Even up into the sigmoid colon there

is extensive ulceration. Grossly there is nothing about the rectum that would make a definite diagnosis of any particular type of stricture. But the retroperitoneal lymph glands were greatly enlarged and there were large areas of necrosis. Grossly, at autopsy, this case was diagnosed as lymphogranuloma, but looking back on the case, tuberculosis seems to be a more likely diagnosis. The ulcerations of the vagina and perineum were tuberculous, too, and these areas seem to have been infected by direct contiguity.

It is interesting to wonder whether the tubes removed in 1914 were tuberculous too, but at that time the tissues were not examined microscopically here.

The kidneys are small and granular, and they show microscopic evidence of advanced arteriolar sclerosis as goes with hypertension, and at the same time show evidence of pyelonephritis. This inflammatory condition is probably the relic of the pyelitis which the patient suffered in 1920 at the time of her hysterectomy for fibromyomata of the uterus.

She apparently died of exsanguination. I believe the edema was a result of altered plasma proteins in the blood due to the extreme anemia. She probably

had edema of the brain along with generalized subcutaneous edema, due to the same cause, and this would probably be a contributory factor to her death. I can see no reason to bring in the element of heart failure in the face of exsanguination.

Dr. Wilson: I think we very often misinterpret the findings with reference to the heart. Naturally her heart action was weak, but in one who is so exsanguinated we should not diagnose heart failure under those circumstances. Call it circulatory failure if you will, but realize that the condition is one of collapse or possibly shock.

Dr. Wood: In lymphogranuloma in the female, isn't the lymph node enlargement more apt to be in the pelvic or retroperitoneal area than in the inguinal region, whereas in the male it is apt to be in the groin?

Dr. Lynch: That may be the case, and if so, I suppose lymphogranuloma would not have been so far-fetched a diagnosis grossly at the time of autopsy. We still do not know enough about lymphogranuloma to say just what it does and does not tend to involve.

BOOK REVIEWS

THE LABORATORY DIAGNOSIS OF SYPHILIS. The Theory, Technic, and Clinical Interpretation of the Wassermann and Flocculation Tests With Serum and Spinal Fluid. By Harry Eagle, M.D., Passed Assistant Surgeon, United States Public Health Service, Washington, D. C.; Lecturer in Medicine, Johns Hopkins University Medical School, Baltimore, Md.; Formerly Assistant Professor of Bacteriology, University of Pennsylvania Medical School.

With Foreword. By J. Earle Moore, M.D., Associate in Medicine, Johns Hopkins University; Physician in Charge, Syphilis Division of the Medical Clinic, and Assistant Visiting Physician, Johns Hopkins Hospital, Baltimore, Maryland.

Price \$5.00. The C. V. Mosby Company, St. Louis, 1937.

This is a 1937 book and coming as it does from a high authority in the U. S. Public Health Service and a teacher at the Johns Hopkins Medical School commands immediate interest. The book is timely also because of the nation wide attack on syphilis control now. On first thought one may question whether or not there is a real need for such an extensive monograph on this subject, but the last word has not yet been said on the diagnosis of syphilis, as the author well portrays. Evidently the Wassermann test, invaluable as it is, is not the conclusion of the whole matter. The author ably discusses many other tests and their indications. This is a splendid contribution to the literature on syphilis.

SYNOPSIS OF GYNECOLOGY Based on the Text-book DISEASES OF WOMEN. By Harry Sturges Crossen, M.D., F.A.C.S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital, and St. Luke's Hospital; Consulting Gynecologist to De Paul Hospital and the Jewish Hospital; Fellow of the American Gynecological Society and of the Central Association of Obstetricians and Gynecologists, and.

Robert James Crossen, M.D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine; Assistant Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Gynecologist to St. Luke's Hospital and to De Paul Hospital; Fellow of the Central Association of Obstetricians and Gynecologists.

Second Edition. Price \$3.00. The C. V. Mosby Company, St. Louis, 1937.

This is another epitome intended to be of use to the busy doctor or student. There is a discussion of anatomy and physiology to begin with, and then follow various methods to be resorted to in the examination of the patient. Under the head of each disease a well considered plan of treatment has been presented. There are many illustrations.

SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES. By George R. Herrmann, M.D., Ph.D., Professor of Clinical Medicine, Uni-

versity of Texas, Member Association of American Physicians, American Climatological and Clinical Association, American Society for Clinical Investigation, American Society for Experimental Pathology, and the Society for Experimental Biology and Medicine. Fellow American Association for the Advancement of Science, American College of Physicians and the American Heart Association. Miembro Correspondiente Extrajero De La Sociedad Mexicana De Cardiologia.

With 88 Text Illustrations and 3 Color Plates. Price \$4.00. The C. V. Mosby Company, St. Louis, 1936.

The student and the busy practitioner often finds a need for a handy reference book. The author has enlarged upon his lectures and drawn liberally from the American Heart Association activities in writing this book. The illustrations are numerous and very good. The relative importance of practical clinical methods and the more complicated instruments of precision have been clearly outlined.

Illustrated. Price \$3.50. The C. V. Mosby Company, 1937.

The author of this little book is one of the outstanding specialists in this field. A large part of every general practitioner's practice is made up of digestive disorders, and many of them are functional in nature. The author approaches the whole subject from a very sensible standpoint. He very clearly assigns the diseases of the digestive tract to the department of general medicine primarily. While one may have at hand elaborate facilities for examining a patient, the history of the case is considered of fundamental importance. A general survey of the entire body is suggested. Then follows an investigation of the gastro-intestinal tract. A considerable section of the book is taken up with the discussion of the more serious diseases, many of them surgical in nature. Under the head of treatment the recommendations are brief but point the way to more extensive study if necessary. The findings of the X-ray are interesting. The illustrations are good.

A TEXTBOOK OF SURGICAL NURSING. By Henry S. Brookes, Jr., M.D., Instructor in Clinical Surgery, Washington University School of Medicine; Surgeon to the Out-Patients, Washington University Dispensary; Assistant Surgeon to Barnes Hospital.

With 233 Illustrations. Price \$3.50. The C. V. Mosby Company, St. Louis, 1937.

This is an unusually comprehensive book from one of the best surgical centers in the world. The author has had the cooperation of several outstanding authorities, including Drs. Crossen, Graham, and others. The text is arranged in a logical sequence in which the surgeon, the nurse, and the hospital administrator will find invaluable suggestions. The book is much more than a simple manual containing six hundred and thirty six pages and two hundred and thirty three illustrations. There is a considerable section on the bones and joints. Under the head of operative procedure every detail appears to have been presented from the standpoint of preparation for the operation. Each instrument is carefully designated, and numerous illustrations indicate their use.

CLINICAL ALLERGY. By Louis Tuft, M.D., Chief of Clinic of Allergy and Applied Immunology, Temple University Hospital; Associate in Immunology, Temple University School of Medicine; Director of Laboratories, Pennsylvania Department of Health, Philadelphia. Introduction by John A. Kolmer, M.D., Dr.P.H., D.Sc., LL.D., L.H.D., Professor of Medicine, Temple University; Director of Research Institute of Cutaneous Medicine, Philadelphia. 711 pages with 82 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth \$8.00 net.

Rapid advances have been made in the study of allergic manifestations, and yet there is room for further research along this line. The specialist requires an extensive armamentarium in the study of allergic patients not possible to the general practitioner yet out of his vast experience may come a simplified plan for the treatment of many of these conditions which the average doctor can carry out. This book is the product of a vast experience in a large clinic. One of the first subjects treated is anaphylaxis. Nearly every practitioner finds himself dealing with these problems regardless of his specialty. The technique of these tests has been clearly given. A considerable section has been devoted to asthma and hay fever. Then there is the every present migraine. Then there are the urticarial manifestations so often spectacular in distribution. Allergy in children comes in for due consideration. All along through the book treatment has been given a large place.

SYNOPSIS OF DIGESTIVE DISEASES. By John L. Kantor, Ph.D., M.D., Associate in Medicine, Columbia University; Gastroenterologist and Associate Roentgenologist, Montefiore Hospital for Chronic Diseases, New York.

PROGRAM THIRD ANNUAL MEETING PIED-
MONT POST GRADUATE CLINICAL ASSEM-
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ANDERSON, S. C.

September 8, 9, 10, 1937

WEDNESDAY, SEPTEMBER 8

Registration—2:30 P. M.

Dr. E. A. Hines, President-----Presiding
Seneca, S. C.

Address of Welcome-----Dr. E. O. Hentz
President Anderson County Medical Society

SCIENTIFIC PROGRAM

3 P. M. to 6 P. M.

Internal Medicine

Subject—Diseases of the Chest

The Pathogenesis of Tuberculosis

By Dr. Kenneth M. Lynch, Professor of Patho-
logy, Medical College of the State of South
Carolina, Charleston, S. C.

Observations of Six Months Experience in Holding
Tuberculosis Clinics

By Dr. John M. Preston, Clinician Traveling
X-Ray Unit, State Board of Health

The Diagnosis and Treatment of Chronic Pulmonary
Infections Which Simulate Tuberculosis

By Dr. David T. Smith, Associate Professor
of Medicine of Duke University, Durham,
North Carolina

THURSDAY, SEPTEMBER 9

3 P. M. to 6 P. M.

Joint Meeting With The South Carolina Division
of The Southeastern Surgical Congress

Dr. J. R. Young, Chairman-----Presiding
Anderson, S. C.

Treatment After Laparotomy

By Dr. Frank K. Boland, Professor of Clinical
Surgery of Emory University, Atlanta, Ga.

The Diagnosis and Treatment of Common Diseases
of the Ano-Rectum

By Dr. M. C. Pruitt, Atlanta, Ga.

Down the Gastro Intestinal Tract With Camera and
Tools, Lantern Slides, Moving Pictures

By Dr. A. G. Brenizer, Charlotte, N. C.

SPECIAL PROGRAM

THURSDAY EVENING—7:30 O'CLOCK

John C. Calhoun Hotel

There will be a dinner under the auspices of the Anderson County Medical Society. After the dinner Dr. Frank Boland, Professor of Clinical Surgery of Emory University, Atlanta, Ga. will deliver an address on Crawford W. Long and the Discovery of Ether Anesthesia. Dr. A. G. Brenizer of Charlotte, N. C. will speak on Why Be a Doctor, When You Might Be Something Else. It is planned that the

evening shall be somewhat informal and an oppor-
tunity given for social contact.

FRIDAY, SEPTEMBER 10

3 P. M. to 6 P. M.

Dr. Jack Parker, Vice-President-----Presiding
Greenville, S. C.

The Practical Treatment of Abortions

By Dr. Lester A. Wilson, Professor of Obstetrics,
Medical College of the State of South Carolina,
Charleston, S. C.

The Development of the Blood Donors Organiza-
tion of Augusta. Indications For Blood Trans-
fusions in Infancy and Childhood

By Dr. Philip A. Mulherin, Assistant Pro-
fessor of Clinical Pediatrics, Medical Depart-
ment University of Georgia, Augusta, Georgia

The Treatment of the More Common Skin Diseases
of General Practice. Clinic.

By Dr. Frank Wrenn, Roentgenologist Anderson
County Hospital, Anderson, S. C.

GENERAL INFORMATION

Post Graduate Medical Education has in recent years been a matter of deep concern on the part of organized medicine in America. The South Carolina Medical Association and the State Medical College have cooperated at different times in bringing to the physicians of the State graduate courses in medicine and surgery. In more recent years a new type of instruction known as Clinical Assemblies has been popular and successful in many parts of the United States. In line with this trend the Piedmont Post Graduate Clinical Assembly came into being about four years ago and had its inception at Anderson, South Carolina. The program this year has been varied according to the demands most prevalent from a careful study of the general situation. This type of graduate instruction necessitates a wide range of subjects and a change in the personnel of the teachers each year. The founders of the Piedmont Clinical Assembly planned to invite all of the medical schools of the South Atlantic States to cooperate in the expansion of the Assembly. There has been a generous response on the part of the members of the faculties from these various schools to the invitations extended to them. It is hoped that the entire profession of the South Atlantic States will likewise show a growing interest in the Assembly by attending the various courses in ever increasing numbers.

The program committee plan covering all of the larger fields of medicine and surgery and the special-
ties every few years. This year Diseases of the Chest will be the leading subject. Every effort has been made to present a series of practical lectures so that the general practitioner may profit by each one of them and be able to apply the newer teaching in his every day work. The Anderson Co. Medical Society and the Anderson County Hospital cooperate in the

promotion of the Assembly. There are several notable features this year. There has been a great impetus in the matter of caring for tuberculosis in the State of South Carolina this year. The Assembly will reflect this activity by presenting the work of the new traveling X-Ray Laboratory of the State Board of Health. In the neighboring State of Georgia at Augusta there has recently been developed a new Blood Donors Organization and the story of this splendid achievement will be presented. The Assembly was really founded on the course of lectures given four years ago by the distinguished professor of obstetrics at Emory University, Dr. J. R. McCord and under the auspices of the United States Children's Bureau. The Assembly wishes to continue to emphasize this phase of graduate training and to cooperate with the committee on Maternal Welfare of the State Medical Association so that will be a special feature this year.

The Program Committee has arranged for an enjoyable banquet, not one of the long drawn out affairs sometimes put on, but a real social function at which there will be only a few speeches but of

unusual interest. Much of the success of this Assembly has been due to the participation of the South Carolina Chapter of the Southeastern Surgical Congress under the able leadership of Dr. J. R. Young of Anderson, Chairman of the Chapter. There has been a ready response on the part of the highest officers of this new and virile scientific organization to lend their presence each year. It is hoped that every surgeon in South Carolina will be able to enjoy this part of the program. There has been a cordial interest in the Assembly on the part of the Anderson Chamber of Commerce and the public press of the State. The attendance continues to be large and should be much larger this year. Climatic conditions are usually ideal, the vacation is over and everybody is ready to show a keen appreciation of a really worthwhile program such as will be presented at Anderson.

OFFICERS

Dr. Edgar A. Hines, President ----- Seneca, S. C.
 Dr. Jack Parker, Vice-President ---- Greenville, S. C.
 Dr. A. L. Smethers, Sec'y-Treas. ---- Anderson, S. C.
 Dr. Herbert Blake, Registrar ----- Anderson, S. C.

NEWS ITEMS

ANNOUNCEMENTS

(Continued from page 216)

Dr. Emile Naef, of Tulane School of Medicine, New Orleans, whose subject is Childhood Tuberculosis; and Dr. J. Arthur Myers, Professor of Medicine and Public Health, University of Minnesota, who will bring a message from the National Tuberculosis Association, of which he has just been elected President. Dr. W. Atmar Smith, of Charleston, will also take part on the program.

The physicians of South Carolina are cordially invited to attend the sessions of the Southern Tuberculosis Conference. A program will be mailed on request from the Virginia Tuberculosis Association, 504 Atlantic Life Building, Richmond Virginia.

Dr. James A. Hayne, State Health Officer, Columbia, S. C., addressed the Rotary Club of Hartsville, S. C., at their meeting, July 27, on "The Health Problems of South Carolina." Some of the problems discussed included child birth, high infant mortality, syphilis, malaria, and tuberculosis all of which, according to Dr. Hayne, are being cared for through clinics held by health boards throughout the

various counties in the state. Although much progress is being made, Dr. Hayne let it be known that there was still a great job ahead for all.

Dr. Roy P. Finney, well known Spartanburg physician, has added a successful venture into literature to his accomplishments in the medical field. His book, "The Story of Motherhood," will be published September 11 by Liveright. Dr. Finney has been practising medicine in Spartanburg for the past 15 years and his book is expected to be of special interest because of its subject and contents. It deals with the history of motherhood from primitive times to the present, and the concluding chapters contain a practical discussion from both the medical and social viewpoints of present day problems, such as illegal abortion, birth control and childlessness.

Thursday, July 24, Dr. Ernest Cooper, Superintendent of the S. C. Tuberculosis Sanatorium at State Park, lectured to a group of Negro health workers gathered at Orangeburg. Dr. Cooper took for his subject "The Negro and Tuberculosis." He discussed the reasons

why the South Carolina Negro death rate from tuberculosis is three times that of the whites and gave some timely advice as to what steps the State should take to curb this widespread disease among the colored race.

Dr. Edythe Welbourne, Vice President of the Columbia Business and Professional Women's Club, together with her daughter-in-law, Mrs. Clifford Welbourne, attended the meeting of the National Federation of Business

and Professional Women's Clubs held in Atlantic City, July 19-24. After the Convention they took a delightful cruise to Bermuda sponsored by the National Federation of American Business and Professional Women's Clubs, Inc. They returned to New York July 30 aboard the Monarch of Bermuda. There were 47 other members of the Business and Professional Women's Club on the cruise from different clubs in the United States.

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NUMBER 10

PRACTICAL POINTS IN THE TREATMENT OF CORONARY DISEASE

By

LESLIE T. GAGER, M. D.

*Cardiac Service, U. S. Veterans Administration
Hospital, Columbia, S. C.*

There is much controversy—pharmacological, medical, and surgical—regarding the treatment of coronary artery disease. Our present comments, therefore, following the axiom that in the practice of medicine, theory and experiment stand or fall ultimately according to experience at the bedside, are based on the study and management of 150 patients observed during the past six months at the Veterans Administration Hospital in Columbia, South Carolina.

Using the criteria for cardiac diagnosis approved by the American Heart Association, and combining the data gained from history, physical examination, and X-ray and electrocardiographic study, these patients have been divided into three groups:

1. Coronary thrombosis with recent myocardial infarction—24%.
2. Coronary sclerosis with the anginal syndrome—36%.
3. Coronary sclerosis with myocardial degeneration and failure of the left, or both, ventricles—40%.

Of these patients 85% showed hypertension and 75% were in the fifth decade, with an average age of 45 years; in other words, men at presumably the prime of life yet suffering from a breakdown of a supremely vital function of the organism. The aim of therapy has been to restore the greatest possible measure of

cardiac reserve to these men and to teach them to live henceforth within the limits of this reserve.

Rest, of course, is the basic principle of treatment in the restoration of cardiac function in these patients. But, whereas the fractured leg can be put up in a cast, the diseased lung subjected to collapse, or substitution therapy provided for an insufficient bone marrow or pancreas, healing of the heart must proceed as the heart works. Fortunately, as an example of what Richard Cabot has recently called the "super-wisdom of the body" and Meltzer many years ago the "factors of safety," the cardiovascular system is hardly to be surpassed: its powers of repair, compensation, and adjustment and, as concerns the coronary circulation in particular, of forming collateral channels, of canalizing damaged areas of the heart muscle and of utilizing Thebesian vessels for blood supply, lend encouragement in many difficult situations.

In the attempt to provide optimum conditions for the sparing of myocardial energy and at the same time for the return of an efficient coronary blood flow, it is convenient to consider the possible avenues of therapeutic approach under three headings:

1. Direct action on the coronary vessels.
2. Improvement of diminished cardiac output by the relief of congestive failure.
3. General measures for the reduction of the unnecessary energy requirements of the body.

Since Askanaczy in 1895 introduced the use of xanthine bodies as coronary vasodilators for the relief and prevention of anginal pain, their employment has become wide-spread; in recent years the benefits of theophylline-

*Presented to the Columbia Medical Society, July 12, 1937.

ethylenediamine (metaphyllin, aminophyllin) theominal, theocalcin, and similar preparations have had enthusiastic exponents. The work of Fred M. Smith is an outstanding example of such favorable experience. In 1933, however, the English clinicians Evans and Hoyle reported a series of 90 anginal patients whose response to various of these drugs was observed under most carefully controlled conditions, and Harry Gold and his co-workers have recently reported the results of a similar five-year study of 100 coronary patients, using meticulous care in their evaluation of the relief of cardiac pain by theobromine and aminophyllin compared with lactose employed as a placebo. From both these studies it was concluded that the xanthines exert no specific action in the relief of cardiac pain. With these conclusions we are in substantial agreement as the result of extensive use in our patients of aminophyllin and of theobromine (when theobromine is combined with phenobarbital, it is probable that the latter is the effective component, we are unable to see that the xanthines have been any more effective in preventing anginal pain than rhubarb and soda mixture, which if not strictly a placebo is definitely not a coronary vasodilator.

It is of interest in passing to note Gold's list of factors (entirely apart from drug action) which may serve to diminish anginal symptoms; spontaneous variations in pain, change in the weather, change of occupation or amount of work, change of diet and of eating habits, condition of the bowels, emotional stress, change in domestic affairs (we recall the disappearance of obstinate angina in a physician's wife after she left her husband and lived in a home for women), confidence aroused in the treatment or the use of a new procedure, and change in the medical adviser.

It may be added that focal infections in teeth, tonsils, and prostate, and concomitant diseases such as diabetes mellitus, infectious arthritis, duodenal ulcer, cholecystitis, and pellagra, have been dealt with as indicated while the role of worry and fear in aggravating heart diseases is constantly to be considered. Many a situation has been bettered by a few days' leave of absence in cases of family illness or trouble.

The use of digitalis in patients with angina of effort uncomplicated by congestive failure,

we have found to be consistently ineffective; when the left ventricle is insufficient and lessened coronary blood flow permits a lower threshold of myocardial anoxemia, then adequate digitalization becomes a matter of primary importance. In recent coronary thrombosis we rely upon morphine or codeine, with rest, for the relief of pain and respiratory distress and until the necrotic phase of the infarction is past prefer not to use digitalis. This, of course, is another controversial point.

To the general measures of energy conservation, obviously, we must resort for whatever lasting benefit the patient with coronary disease is likely to receive. We insist, first, that these patients get an adequate amount of sleep, prescribing phenobarbital, grains one and one-half, or sodium bromide, grains ten to twenty, to be taken at bed time. For patients who are awakened in the early morning by hypertensive occipital headache, the combination of chloral hydrate and bromide is useful.

A smoothly functioning digestive system is a second aid. To keep the bowels open, gastrointestinal and cardiac relationships being what they are, milk of magnesia is the laxative of popular choice, with magnesium sulphate for stronger purgation, and mineral oil and petrolagar, plain or fortified, as patients find preferable. For the "bilious" patient with "torpid liver" we sometimes return to the old fashioned dose of calomel, grains two, with sodium bicarbonate, grains ten, at bed time, followed by an ounce of epsom salt in the morning.

It is in respect to exercise that our clinical grouping of cases becomes especially important.

Anginal patients without complications are treated on an ambulant status and allowed to walk to the main dining room, but are instructed to use the elevator in place of stair-climbing. If overtaken by substernal pain, they are told to stop short until the pain stops and then go on slowly. They are provided with nitroglycerin (grains 1/100) to slip under the tongue if the pain does not subside promptly, but in practice not one patient out of ten finds it necessary to use the tablets regularly. The power of suggestion may be seen in the case of nitroglycerin, in the effect which many of us have long believed without an entirely satisfactory explanation, for Gold found relief of pain from

its use in 82% of his patients but equal relief from the placebo in 78%.

For patients with acute thrombosis bed rest for four to six weeks is essential in order to prevent unnecessary accidents and insure a fair state of repair in the area of infarction. For the pain of the early hours or days of the attack, we have already indicated our belief in the free use of morphine, but after this period, complete bed rest in most cases keeps the patients singularly free from cardiac distress. In these patients we have often prescribed theobromine, grains five, with phenobarbital, grains one-fourth, *t. i. d.*, *p. c.* but control periods with *mistura rhei et sodae* have been equally satisfactory. The transition between bed rest and full ambulatory status is made by gradual steps; first toilet and bath room privileges; sitting up and walking about the room for increasing periods; extending the walks to porch, to mess-hall, to recreation building and finally around the grounds. In this way cardiac reserve is built up at a rate of progress governed by the patient's symptoms and objective findings of which pain and the pulse rate are two of the most significant.

Congestive failure is likewise an indication for bed rest, the duration of which depends on the restoration of compensation under the influence of restriction of food and liquids, relief of respiratory distress, digitalization and, when needed, the diuretic action of potassium nitrate and salyrgan. Granted that recent infarction can be excluded, prolonged bed rest for these patients is not regarded as desirable if the ventricular rate can be kept normal by limitation of exercise, either alone or aided by maintenance doses of digitalis. Unfortunately, in this group are seen many in the terminal stages of cardiac defeat.

Of the virtues of the low caloric diet we can speak enthusiastically, not only for patients with acute cardiac thrombosis, but in the obese patients with angina and congestive failure. We have had the cooperation of Miss Edna B. Ward, Chief Dietitian, in providing a diet of carbohydrate 119 grams, protein 70 grams, fat 45 grams, supplying 1125 calories. On this intake an ambulant patient of normal metabolic activity loses approximately three pounds weekly, while the protein is ample to maintain ni-

trogen balance. The advantage of the low caloric diet are substantial. There is relief of the mechanical burden of overweight and of the displacement and embarrassment of the heart by reason of panniculus adiposus and an abnormally elevated diaphragm. A lessening of the postprandial energy requirement of the heart is brought about by the smaller meals. With undernutrition basal metabolic rate levels fall to minus ten, minus fifteen, or minus twenty, with benefit in the way of decreased demands on the circulation. Intelligent patients soon have subjective evidence of improvement far outweighing the temporary privation of the diet. As examples three patients are shown.

Case 1. Age 43 years, farmer, admitted April 13, 1937, with dyspnoea, swollen legs and abdomen, choking spells of three months duration. Height 75 inches; weight 290 pounds. B. P. 138 systolic and 110 diastolic; rate 104, rhythm regular. Heart enlarged to left and right, gallop rhythm. Pulmonary congestion, ascites, large and tender liver, dependent edema.

Electrocardiogram: Intraventricular block, S-T-3 convexity suggests posterior infarction.

Treatment: Bed rest, low caloric diet, phenobarbital grains 1-1-2 at bedtime; digitalis grains three, *b. i. d.* for eight doses. Diuresis with loss of 25 pounds of edema. Heart rate 64. Up May 8th for one-half hour, increasing daily. Dental extractions May and June. Weight July 12th, 234 1-2 pounds; no dyspnoea, very rare substernal pain. Home three weeks without symptoms.

Case 2. Age 59 years; filling station operator, admitted May 21, 1937, 30 hours after an attack of substernal pain lasting all night. There was a history of belching, abdominal fullness, and tenderness in the right upper quadrant of several years' duration. Height 69 inches; weight 190 pounds. Temperature 102 degrees; pulse 108; respiration 28; white blood cells 13,300; B. P. 130/84. Heart not enlarged. Sounds were faint and muffled.

Electrocardiogram: T-I low and rounded; S-T-4 depressed and concave. T-4 upright. Impression: Acute coronary thrombosis with anterior infarction. Treatment: Complete bed rest, morphine sulphate, gr. one-fourth (*hypo.*) for pain, theobromine, grains five, with phenobarbital, grain one-fourth *t. i. d.*, low caloric diet.

The pain subsided entirely after two days; the temperature was normal on the fifth day. The pulse remained at 80 to 84 beats per minute. The patient was allowed up on June 15th for fifteen minutes. His weight has fallen to 174 pounds. Gall bladder symptoms, as well as cardiac pain, have disappeared.

Case 3. Age 57 years, was forced to give up his work as railroad engineer in October 1936, on account of increasing dyspnoea and severe substernal pain on exertion. He was admitted April 4, 1937; weight 231 pounds; height 65 inches. Blood pressure 170/90; rate 100; rhythm regular. Heart was moderately enlarged to the left; sounds faint and muffled.

Electrocardiogram: Not conclusive. Sagging S-T-3 and diphasic T-3 and T-4 waves suggest coronary sclerosis.

Treatment: Rest in bed; nitroglycerin, grains one-one hundredth under the tongue p. r. n.; theobromine, grains five with phenobarbital, grains one-fourth alternating with mixture rhei et sodae one teaspoonful t. i. d., p. c., and low caloric diet. The patient lost 42 pounds in 13 weeks, and had no anginal pain or dyspnoea after the first week in the hospital.

Finally, for patients whose anginal attacks recur on such slight provocation that even the ordinary activities of life become impossible, we have advised total thyroidectomy. Three patients in this series have been operated on by Dr. H. D. Coffee with lowering of basal metabolic rate to the level of from minus 19 to minus 30, and with distinct benefit, both the patients and we feel. Our last patient is present.

Case 4. Age 45 years, came in on July 15, 1936, for his sixth hospital admission, with substernal pain on slight exertion and even at rest, with occipital headache, dizziness, and a history of hematemesis. His height was 69 inches; weight 164 pounds. The blood pressure was 240/140, the heart moderately enlarged (M. R. 4.6 cm, M. L. 12.9 cm, chest 32.5 cm.) Apical sounds faint, second aortic accentuated. Peripheral arteries slightly sclerotic, retinal arteries definitely thin and tortuous.

Electrocardiogram: Left axis deviation, S-T segment convex and T-wave inverted in leads 2 and 3; Q-3 5 mm, R-1—14 mm. QRS-3 of "W" type. Impression: Myocardial degeneration, posterior infarction. Treatment: The usual

sedatives had been replaced by codeine and morphine, called for at regular intervals during the day and night. No relief from vasodilator drugs.

B. M. R. on May 14, 1937 was minus 7; on May 25th approximately 95% of a small, apparently normal thyroid gland was removed through a collar incision under 1% novocaine anesthesia. The basal rate on June 25 was minus 19. Blood pressure has returned to 190/120 and headaches persist. The substernal pain has been relieved by at least 75% and the patient has ceased to require any narcotic. Discharge from the hospital has been recommended.

Patients without hypertension naturally offer a better prognosis for duration of life; an example of a suitable case is shown in this patient.

Case 5. Age 48 years, textile worker, admitted May 11, 1937, with a history of substernal pain on effort for five years. He also has considerable pain at rest. For the past 14 months he has been unable to work. There has also been dyspnoea on exertion and occasional edema of the ankles. Height 65 1-4 inches; weight 120 pounds. B. P. 136/96; rate 92; rhythm regular. Heart not enlarged. First sound split at apex. Peripheral arteries moderately thickened.

Electrocardiogram: A "Saddle" shaped S-T segment in lead 1, and a small Q-4 wave (1.5 mm.) are compatible with coronary sclerosis.

Treatment: Under rest, phenobarbital, and courses of theobromine and mist rhei et sodae (between which no difference of effect could be distinguished) the patient has been comfortable but attempts to walk rapidly or to take part in games have caused return of substernal pain. It is believed that a reduction of 25% in this man's metabolic level would allow much more activity, short of the anginal threshold.

Fourteen hospital deaths have occurred in this series. Congestive failure was the terminal picture in three patients with coronary thrombosis and in eight patients with myocardial degeneration. Uremia caused death in three. Cerebral hemorrhage was a complication in four cases; pulmonary infarction in three cases. Ventricular fibrillation was recognized in one case.

Pure left ventricular failure was seen in one

man with profound orthopnea without congestive phenomena or pain and minimal coronary lesions at necropsy. He died in eight hours after admission with no response to digitalis. Other than this man, there were no unexpected deaths. On the contrary, one patient who had left the hospital against advice died suddenly in an anginal attack and a second man with gallop rhythm who had insisted on going home was subsequently found dead in bed.

SUMMARY

The division of patients with coronary arteriosclerosis into the groups with coronary thrombosis, angina, and myocardial degeneration has met the needs of diagnostic accuracy and individualization of treatment.

The basic importance of rest, sleep, care of the bowels, and graduated exercise, has been pointed out.

Digitalis has not been used in patients with acute infarction and has not been found helpful in cases with the anginal syndrome or myocardial degeneration except in the presence of congestive heart failure.

The superiority of the xanthine drugs in preventing or relieving cardiac pain has not been shown.

The advantages of a low caloric diet and of weight reduction in patients with coronary artery disease have been striking.

Metabolic rate reduction by means of total thyroidectomy in patients with intractable angina has been found a worthwhile procedure.

(The material in this paper is used by permission of the Medical Director, Veterans Administration, the opinion and conclusions being solely the authors.)

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PSYCHONEUROSIS FOLLOWING INJURY

By

CHARLES O. BATES, M. D., F. A. C. S.
GREENVILLE, S. C.

In a country where our National Safety Council reports an increase of 1,500 deaths over last year or a total of 38,500 deaths from automobiles, the accidental death from all causes at 111,000 an increase of about 10,000 over the previous record year 1934. The Council estimated about 400,000 permanently disabled and 10,300,000 temporarily disabled persons last year. I believe with a record of all this trauma in a country where the beds for mental illness are on a rapid increase and where the subject of *compensation* is daily discussed, the consideration of one of the common sequelae is important.

I therefore wish to bring to you the subject of "Psychoneurosis Following Injury," the shell shock of industry, the nervous breakdown following accidents.

The complication, I believe, is more common today than in former years, possibly due to the types of trauma and different living conditions. We also have more agencies of compensation now than in former years. We have the Federal Government, the Veterans' Compensation, the State Compensation Commission, the Insurance Companies, Industries, and the well-to-do individual.

The majority of traumatic deaths, and certainly the greater majority of psychoneuro-

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sis, come from an injury directly or indirectly to the head and spine. Swift states that there are approximately 112,000 cases of skull fractures annually in the United States. It would be interesting to know just the number of psychoneurotic cases that follow this great amount of trauma. One would certainly be astonished at the cost to industry of these sad and complex cases.

You are called upon to treat the trauma occurring in industry, in the home, and on the highway, and you, more and more, are going to have to cope with that most distressing sequel—psychoneurosis. All of us remember the patient who had an injury, and in a few hours or few days developed a psychoneurosis varying in degree, and quite often the neurotic symptom complex was very much greater than the slight injury would indicate.

The author wishes to eliminate all cases of malingerers from this discussion. Sometimes, however, it is not such an easy job to brush them aside.

Let us try to understand the subject; that is, the difference between neurosis and psychosis. The psychotic lives in a world of fantasy. The neurotic lives in a real world, his difficulties are greater than they are for normal persons, but they are the same difficulties we all have. The difficulties of the psychotic are those of one living in another world not subject to ordinary physical laws. The neurotic can be made aware of the irrationality of his neurosis. The psychotic is not conscious of his psychosis.

All people if they are above the average mentally may be neurotic. Some psychiatrists say that if you are not neurotic then you are a moron. You remember the old saying, "All the world is queer except thee and me, and even thou art a little queer."

The cause of neurosis is the collision of a neurotic with a problem he cannot surmount. The neurotic background in the patient's history, both as to inheritance and environment, has to be considered. You can see here the importance of a most careful history and investigation into the individual's own neurotic personality.

We have the functional and the organic psychoneurosis. The functional neurosis is caused by fear. Anxiety states are the most

common. Fear of some permanent disability is often caused by a thoughtless relative, friend, or nurse saying something soon after the patient has partially recovered from shock or regained consciousness. They usually talk carelessly and often mention the possibility of a permanent disfigurement. This at once places before the patient a problem that he cannot surmount.

The anxiety states are caused by a desire to get the greatest compensation for the injury. We all remember the post-war days when our offices were filled with all kinds of ills and neuroses. We also remember how these cases disappeared like magic after what I think was the greatest prescription of all times, written by President Roosevelt and Mr. Douglas, the order which made it necessary for the illness to be service-connected.

These functional neuroses suffer from morbid states of mind caused by suggestions. Sometimes these suggestions come from those who are interested, not in the patient's physical well-being, but in some monetary settlement of the case.

These cases may have various and complex symptoms: heart palpitation, limb weakness, walking with a limp. They sweat easily, get out of breath, cannot digest food; even at times are in a mild delirium.

The other functional causes are: domestic friction, financial worries, sexual frustration. You may say this is not connected with traumatic neurosis, but where there is trauma, any one of these may be the underlying reason or predisposing cause for a severe neurosis; even though at times the trauma may be very slight.

Defeat breeds neurosis. This is true in personal affairs as well as it has been so many times in military affairs.

War neurosis is very much like peace-time neurosis. It is an escape from what the patient considered an unbearable situation.

The Editor of *Fortune* reports that one German hospital had no shell shock cases until the army was turned back at the Marne; and the Allies' advances in 1918 greatly reduced the British army mental cases.

You can see here the picture of a man in civilian life with financial, physical, or do-

mestic defeat at his door. This man having a railway accident or an accident in industry, the chance for neurosis is very high. It is in these cases that the surgeon with the aid of the claim department can trace the cause of some of these functional neuroses. The functional neuroses have been estimated to represent from 40 to 70% of all neuroses.

The organic causes following trauma are due to molecular changes in the central nervous system resulting from the changes in the circulation or intra-cranial pressure. Let us remember that the brain cannot long be subjected to a pressure that interferes with cerebral circulation without causing cerebral degeneration or death. The cause of death in these cases is due to trauma or pressure on the vital centers at the base of the brain in the region of the third ventricle, medulla and pons.

The brain injury that causes organic neurosis is the one that causes pressure upon the cerebral hemispheres and cerebellum. We have here a change in the intelligent reaction and post-traumatic behavior of the patient which is rather typical. A prolonged pressure causes degenerative changes that later give the psychic manifestations, loss of mental function, apparent paralysis, and anesthesia. A damage to these centers of intelligence causes prolonged post-traumatic sequelae.

The post-traumatic syndrome involves subjective disturbances, headaches, dizziness, memory defects, anxieties, tendency to weep, and insomnia.

This type, to a great degree, can be prevented by the proper management of the acute head injury cases. It can be prevented by controlling the amount of intra-cranial pressure, by rest, dehydration, lumbar puncture, and in some cases by decompression operation.

There are other organic psychoneuroses which are due to an underlying biochemical factor; as in dysfunction of the thyroid, parathyroid, ovary, and suprarenal glands. The dysfunction of one or more of these glands caused by the shock of the trauma brings on a more rapid shift in the physicial chemistry of the body. The sudden change in the biochemical factors seems to make the entire nervous mechanism abnormally sensitive and more unstable.

The fact has been brought out in the work of Dr. Crile in his experimental laboratory in the jungles of Africa. The experiments were carried out upon wild animals. The tiger family registered the greatest reaction and the quickest flash upon the physiological and biochemical factors, due to its very large suprarenal and sympathetic nervous system.

Septic psychosis occurs following severe infection as cellulitis, compound fractures, traumatic pneumonia.

Toxemia is also an underlying cause for psychoneurosis: abscessed teeth, pyorrhea pockets, prostatic infection, chronic pyelitis, or any low grade infection. Syphilis is the cause of psychosis, as in general paresis.

Alcoholic psychosis, acute and chronic forms, presents a patient with hallucinations, hyperesthetic areas in the skin, speech defects, tremors, polyneuritis, and even epileptiform attacks.

Senile neurotics represent about 19% of all mental patients admitted to our state hospitals.

Again you may say these have little bearing on trauma. I am sure the effect of shock upon the suprarenal and sympathetic nervous system producing a rapid shift in the biochemistry of the body must be considered. One cannot forget the importance of the effect that chronic alcoholism, toxemia, and syphilis may have in causing all kinds of nervous disorders precipitated by trauma. Senility cannot be overlooked.

An important part of the treatment is the taking of a good personal and family history, the social environmental history, and history of neurosis. Let the patient talk freely of his symptoms without your aid or suggestion. It is here that important decisions must be made. We decide the apparent genesis of the neurosis. We consider the relative weight of the psychogenic, somatic, and environmental social factors. We try to decide whether it is functional or organic. The most important step in the treatment is to convince our patient, and ourselves, that you have not left one thing undone that might show the underlying cause of the trouble. To build up confidence in the mind of our patient is very important. Sometimes seemingly unnecessary X-ray pictures and laboratory work may have to be resorted to, to relieve

the patient's mind of some great dread. All this care will help you get the cooperation of the patient.

We cannot treat these patients lightly, and say their trouble is just imaginary. This attitude is as senseless as it is cruel.

An old British doctor once said: "When a man is so ill as to think he is ill, when he is not ill at all, then he is very ill indeed." Sir James Paget, discoverer of Paget's disease said: "The patient says that she cannot, the nurse says that she will not; the truth is she cannot will."

So you see there is nothing new in the condition of these sick and semi-sick minds. I do believe our case study and treatment have improved. We know now that we have to know the genesis; that is, whether it is functional or organic. We must remove the cause as nearly as possible, as in other diseases. We too often make no attempt to manage the environment, and the patient is left to the mercy of sympathetic relatives who unwittingly exaggerate the injury. He is left an open prey to all callers, and some of ill repute, who foster in his mind the belief that he has been seriously hurt and is entitled to large compensation.

One of the most important things in the treatment is the selection of a nurse. She should understand the psychology underlying the recovery following trauma. She should be very strict in the control of the patient's family, and his visitors, and that army of people who hang around to get a part of his compensation. In short she should control his environment.

In closing let us remember that, following trauma, every patient is potentially a subject in whom psychoneurosis may develop. We should do what we can to prevent it, mainly by energetic control of the patient's environment.

In the event this complication arises, we should consider the social, hereditary, economic, mental, physical, emotional, and spiritual aspects of each case, and keep adequate case records of our findings. The keeping of neurological findings is just as important as the records of the end result of a fracture or the function of a joint. Potentially an injury on a railroad or in an industry at a future date may become medicolegal in character.

It is so important, economically, to industry

and to the patient for the traumatic surgeon to prevent when possible, and to recognize, record, and treat, this complication at the earliest possible time.

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DISCUSSION

Dr. C. F. Williams, Columbia:

To those of us who are primarily engaged in the field of mental medicine a paper of the kind you have just heard read brings hope and inspiration. While I might not agree with the essayist in all that he has had to say, still I want to express to him my personal appreciation of his presenting this subject and also want to express the hope that our programs annually may contain papers on some psychiatric subjects.

We have not realized the intimate relationship between physical and mental medicine. The two branches, physical and mental medicine, can no longer be separated. With the new conception that every human being is a psychobiological unit, integrated and functioning as a whole, it is made necessary for us to consider the mental aspects of disease as well as the physical aspects of disease, and the physician who is best prepared to take into consideration the mental aspects of the illnesses that he is called upon to treat will render the best service to his patients.

It is not necessary for me to stress to you the importance, I am sure, of the psychoneurotic group. Of all mental problems with which the general practitioner has to deal, no problem confronts him quite so frequently as that of the psychoneurotic. They are in every general practitioner's office; and I may say, without intending to criticize in any way, because I have done just as many as you have done, that of all people you have to deal with probably the psychoneurotic is the least understood, and probably he is the individual who suffers most at the hands of the medical profession.

But I am not discussing the problem which was presented by the essayist, the problem of psychoneuroses following injury. I believe there is a popular belief, in the minds of medical men, that the majority of these people are malingerers and not sick, that they are desiring to get something for nothing. I frankly confess to you that I have had that feeling myself on many occasions, and I say to you that I believe it is true in a good many instances. But by no means is it true in every instance, and for this reason I want to congratulate the essayist upon stressing the fact that we must be

careful lest we do many individuals who have been injured a serious injustice. I have been convinced in my own mind that a particular patient was a malingerer and have settled with my conscience that that was the true condition, but when a compromise was effected to the satisfaction of the patient I have been much surprised and chagrined to see the same train of symptoms following on and was convinced of my error.

If you will keep the following point in mind, as a guide, it will help you to eliminate your malingerers. I have found it very useful in my experience. In most of the traumatic neuroses (in practically all, in fact,) the symptoms fall into the group of either the hysterical or the neurasthenic, or a mixture of the two. In the malingerer the symptoms are symptoms that he voluntarily and deliberately feigns, having in mind compensation as his main object; while in the other group you have your symptoms arising as the result of psychopathological mechanisms of which the individual is not aware or is not fully conscious. If you will just remember this, it will help you in determining whether an individual is really a malingerer or is actually sick.

While many of the things Dr. Bates has told us are worth while, I must say I think he is a bit confused in his definition of psychoneurosis and psychosis. But what he is trying to get over to the profession is that you will have to deal, in your injury cases, with this problem, which is a definite medical problem.

Dr. Marion H. Wyman, Columbia:

I have enjoyed both the paper and the discussion. Mostly I like this paper because it gives me a chance to get up and say something on a program which is almost devoid of opportunity for me.

Many of these cases have an organic basis. But in those cases that have no organic background, the true psychoneurotics, certainly the worst thing for us to do for this individual is substitution—substitution of an operation for other things. I believe the time is coming when we are going to find out that some dysfunction of the internal secreting glands is the trouble. That offers a ray of hope, for certainly conversation and persuasion do not work. If the doctor gives all sorts of drugs by mouth or does an operation, that is terrible. I have tried, if the patient is a female, giving the Theelin and various other ovarian extracts or sticking them with a needle. They are very grateful to you for anything you do. If the doctor does nothing, they are going to resort to their own methods. Unfortunate indeed, of course, is the patient for whom the doctor does nothing. Very often they resort to chronic alcoholism or drugs. I believe that is the basis in most people

who drink whiskey to excess.

Very often, in elderly patients, if you keep them in bed for a few days they get confused mentally. Dr. DuBose, Sr., told me that many years ago.

One of my most outstanding cases was a young girl, who was a psychoneurotic. Her uterus was finally suspended. That girl has never voided since. There is no organic reason why she should not void, but she has led a catheter life ever since her operation 8 years ago.

Another case was a married woman who was very anxious to become pregnant and who had many examinations and treatments. She had a low-grade infection in each kidney. She very seldom had fever. I had thought she was neurotic. She had a dilation of the cervix to cause her to become pregnant and finally had an abdominal operation, but nothing definite was found. It was put down as an operation for relief of adhesions. This girl did become pregnant after being married ten years. We carried her along, kept her kidneys drained, and did everything we could to enable her to have her baby. Finally, at the end of four and a half months she developed acute pain in both kidneys. I kept her on catheter drainage for two weeks, but we finally had to do an abortion. During the labor pains a dose of hyoscin was given. The woman had been terribly septic for two weeks and had been given lots of morphin to ease the kidney pains, also lots of bromin. When the hyoscin was given to lull her labor pains, to take off the edge of them, I happened to mention that I had seen very disastrous results sometimes from giving hyoscin. I mentioned that to the family. That girl did not become normal mentally for twenty days. That was not surprising to me, because she had had this long period of sepsis and then the shock of losing her baby, which she desired very much. I thought it was the drug accumulation, plus the sepsis and these emotional upsets. Finally the woman became perfectly normal and has been normal ever since.

Anybody's guess is as good as mine. My guess is that in a lot of these people who have trauma the drugs, plus what they go through, are the cause of the mental upset. I think what this girl went through, plus the cumulative action of the drug on top of it, caused her trouble of being insane 20 days.

Dr. Bates, Closing the Discussion:

I owe you an apology for bringing up a subject about which I know so little but which has worried me so much, mostly in the hope of getting a discussion. I want to thank Dr. Fred Williams and Dr. Wyman for bringing it out. I just think it is one of those things we know so little about; and maybe, if we keep it before us, we shall learn something about it.

A SYNOPSIS OF CONGENITAL HEMOLYTIC JAUNDICE WITH PRELIMINARY REPORT OF TWO CASES IN IDENTICAL TWINS

By

PAUL H. CULBREATH, M. D., ELLENTON, S. C.

The term Hemolytic Jaundice in a broad sense may take in any clinical condition where there is excessive hemolysis of RBC with jaundice, whether it be from drugs, chemical poisons, bacterial toxins, or any other cause. In the ordinary usage, however, the term is reserved for a definite clinical entity characterized by a long standing, non-obstructive jaundice, associated with splenomegaly anemia, and increased fragility of the RBC, and having a definite familial tendency.

This entity was formerly classified as congenital and acquired, but more recent investigation has lent evidence to the belief that the cases occurring in later life were really congenital and the manifestations had remained subclinical until some infection or other factor brought them down with the true picture of hemolytic jaundice. Those cases of hemolysis due to specific poisons should be classified according to the offending factor and not included in this disease entity.

Congenital H. J. was first mentioned in the literature in 1885, and the first accurate description was made in 1900. The hemolytic nature of the disease was not explained until Chauffard demonstrated the increased fragility of the RBC in 1907. The first American paper on the disease appeared in 1910. The first splenectomy for the cure of the disease was done in 1887, and the patient was alive and well forty years later.

The etiology of this disease is definitely hereditary. It is transmitted as a true dominant mendelian character. Therefore if it occurs in one of single ovum twins, it is to be expected in the other. So far as is known, it is in no way influenced by other diseases, males and females are equally affected, and there is no racial relationship.

The prominent pathological findings in this disease are marked enlargement and overac-

tivity of the spleen evidence of phagocytosis of the RBC by the reticulo-endothelial system, and an extreme overactivity of the bone marrow with almost complete replacement of the fat by red marrow showing a marked degree of erythropoiesis.

Congenital Hemolytic Jaundice presents a clinical picture marked by icterus, splenomegaly, and a certain characteristic blood picture running a chronic course with irregular spontaneous exacerbations. The icterus is most often noticed in early life, frequently in infancy, less frequently in later years. It is not intense except during an exacerbation or crisis, at which times there is a marked increase in the jaundice with fever and pain in the region of the spleen. Variation at the other extreme may at times show only very slight icteric tint in the sclera. The jaundice is caused by accumulation of bile pigment only in the blood and tissues without presence of bile salts, therefore the symptoms of pruritus and bradycardia are not present as in obstructive jaundice.

The jaundice is caused primarily by excessive destruction of red cells with formation of bilirubin. After the anemia is sufficiently marked to produce an anoxemia in the liver, there is some suppression in the ability of this organ to excrete the bilirubin and thereby account for a greater accumulation of bilirubin in the blood. Frequently pigment stones form in the biliary system, and these introduce a superimposed element of obstructive jaundice. Bilirubin does not appear in the urine in this disease, because it does not dialyze through colloidal membranes. Therefore the name "acholuric jaundice."

Enlargement of the spleen is a constant finding in CHJ. The size varies somewhat and is roughly in proportion to the duration of the disease. During the so-called hemolytic crises the spleen rapidly increases in size and becomes very tender, only to subside to its previous size with the passing of the crisis. Jaundice is usually noticed before the splenic enlargement is detected, but not infrequently the enlarged spleen is found in routine examination at a time when the jaundice is not very noticeable. Some of the largest spleens on record have been removed from patients with C. H. J.

The structural changes in the spleen are a congestion of the pulp entirely and increased

activity of the reticulo endothelial system.

The blood picture is the most characteristic feature of this disease. The blood findings upon which a diagnosis is made are increased fragility of the RBC, microcytosis, and reticulocytosis. There is always an anemia, of variable severity. The disease is marked by abrupt crises when there is more profound anemia, fever, increased jaundice, and sudden enlargement and tenderness of the spleen. The red count may drop to one million during such a crisis. Hemoglobin is reduced in proportion, and the color index is about one.

There is an enormously increased activity of bone marrow to supply the cells destroyed; so we find a corresponding increase in the immature reticulocytes. In no other disease are these cells so numerous. There is a high percentage of microcytes, and it has been shown that these microcytes are spheroid in appearance. It is thought that this spheroid microcyte is the cell that is non-resistant to salt solution and thereby causes the increased fragility of the blood.

The increased fragility of the red cells is the most constant and diagnostic feature in CHJ. While there are probably intervals during the disease when this test will approach normal, it can be expected to show the typical variation if followed through. The hemolysis often begins in the solution containing as high as 0.6% sodium chloride. This decreased resistance to hypotonic solutions persists even after complete cures following splenectomy.

The increased fragility of the RBC in this disease has not been satisfactorily explained. Neither has the relationship of the splenomegaly and blood changes been fully understood. There are some investigators who believe that the primary disturbance is in the spleen, where hemolysins are formed which make the RBC less resistant. This theory is supported by the spectacular cures following splenectomy, but is conclusively exploded by the finding that the corpuscles in the splenic vein are no more fragile than those in the artery.

Furthermore, the persistence of the increased fragility after splenectomy tends to show that the spleen is not the primary offender.

It is logical to believe that the starting point in the pathogenesis of this disease centers about

the increased fragility of the RBC, and no satisfactory cause for this has been given. The splenic enlargement then would be secondary and only a congestive process. Cures following splenectomy may be due only to removal of the chief hemolytic organ of the body, and the jaundice clears because the bilirubin is carried to the liver in the general circulation, where it is more dilute and can be handled more easily by the liver. Exponents of this line of reasoning think the iron liberated by hemolysis stimulates the bone marrow to overactivity and production of immature cells.

REPORT OF CASES

Silas W., colored Male, Age 16, weight 90 lbs. Came to office first on 5-7-37 complaining of pain in left side of abdomen. History of previous attacks especially after strenuous exercise. All attacks associated with some headache, fever, and general malaise, which lasted a few days and passed off.

Examination revealed a boy somewhat smaller in stature than average of his age, temperature 100.4, pulse 112. Definite fullness in left abdomen and moderate icteric discoloration of sclera. Spleen edge palpated almost to crest of ileum and umbilicus and very tender. Liver not palpated. Hgb 40 (Dare) urine negative, smear for malaria negative.

On learning that patient had a twin brother he was summoned to office, and 48 hours later they both returned. By this time the patient previously seen had recuperated from his discomfort, and the spleen was somewhat smaller, not tender, temperature normal and the icterus distinctly less marked. The two boys at this time presented a picture strikingly identical. Topography of the spleens showed essentially the same amount of enlargement; icterus noted in both.

Laboratory findings as follows in the two cases 9-9-37 Hgb (Dare) 50 and 55, RBC: 2,140,000; 2,600,000. No plasmodia found.

Fragility test on above date showed beginning hemolysis in tube containing 0.5% NaCl in both cases and was complete in 0.42% and 0.4%. Numerous microcytes in smears from both. No reticulocyte count done.

For economic reasons all laboratory work had to be done by me in the office; therefore

only those procedures necessary for a diagnosis were carried out.

On 5-25-37 hemolysis again began in 0.5 NaCl in both cases and was complete in about 0.4% and 0.38%. hgb was 50 in one and 45 in the other. RBC $2\frac{1}{2}$ million and $2\frac{1}{4}$ million. No plasmodia found. No icteric index was obtained, but the sclera were constantly discolored and the urine clear.

On June 28 the same laboratory procedures were carried out. Hemolysis was again noted in 0.5 NaCl. At this visit the other twin was having a crisis with tender spleen, elevated temperature, etc., and his Hgb reading was 30% D. with a red count of 1,900,000, and an intense jaundice.

A clear family history is absent in these cases because the mother migrated to a northern city when young. These boys were born in a charity ward in New York City and the mother died of an unknown disease when the twins were nine months old. No check could be made on the father. The maternal grandmother is the only relative obtainable and she can give no satisfactory genealogy. The fact that the twins are affected with the same type of disease, which has probably existed all their lives, lends strong evidence of a familial nature of origin.

From the above history, clinical course and laboratory data, I have made a diagnosis of congenital hemolytic jaundice and expect to carry out splenectomy in both cases in the near future.

TREATMENT

Since 1887 it has been known that splenectomy has a favorable effect on hemolytic jaundice. In fact this is universally considered the treatment of choice, and the results stand out with such brilliance as to make this one of the most spectacular of surgical cures of today. While the spleen is probably not primarily at fault, it is the great hemolytic machine, and the RB count has been observed to increase as much as a million cells immediately after clamping the splenic pedicle. The anemia improves immediately, the jaundice usually disappears in two or three weeks, and the patient is transformed from an apathetic sallow creature to health and vigor. The average mortality is about 4%, but it appears that practically all the operative deaths occur in cases who are inadvertently operated upon during a crisis. There are usually few perisplenic adhesions, which fact makes for a more expedient operation, and when the proper time is elected these patients stand splenectomy remarkably well. The remote results are good, recovery is usually complete with practically no recurrences following splenectomy.

During and immediately following a crisis palliative measures such as the coal tar antipyretics, iron, tonics, etc., are used, but with no permanent improvement.

The outlook in this disease then is good provided the patient is found and given the advantage of splenectomy at the opportune time.

SEVENTH DISTRICT MEDICAL SOCIETY MEETING

Members and friends of the Seventh District Medical Society gathered at Cain's Mill, near Sumter, Thursday, September 9, at 3 P. M., for the annual meeting of this organization. It was one of the best meetings ever held in this District which is composed of Clarendon, Lee, Georgetown, Williamsburg, and Sumter Counties.

Outstanding physicians from the medical and surgical professions of North Carolina, Ga., and South Carolina appeared as follows: Invoca-

tion, by the Rev. William H. Stander, pastor of St. James' Lutheran Church, Sumter; papers, Chronic Arthritis and Its Treatment by Dr. T. Preston White of Charlotte, N. C.; Treatment of Goiters by Dr. T. C. Davison of Atlanta, Georgia; Congestive Heart Disease by Dr. J. H. Cannon of Charleston; Random Remarks about Cancer by Dr. R. H. Fike, Surgeon in Charge, Albert Steiner Clinic for Cancer, Atlanta, Ga. Then there were reports of clinical cases.

After the scientific program a dinner was served. Business was then conducted and officers for the ensuing year elected.

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OCTOBER, 1937

THE ASSOCIATION LOSES PROMINENT MEMBERS

Death has invaded the ranks of the South Carolina Medical Association a number of times in recent months. Their local societies will present proper resolutions as usual, but we wish to note the passing of at least two who have rendered long and faithful service, both

to their communities and to organized medicine. One of these has been referred to in another part of this issue by the President of the Georgia Medical Association in a beautiful tribute. It is probable that Dr. D. B. Frontis, of Ridge Spring, was the oldest living Honorary Fellow of the Association in active practice in South Carolina. When we say active, we mean that he was able, far beyond most physicians, at his time of life to keep step not only with the daily details of his practice but with the general progress of medicine and surgery. He was a faithful attendant at his County Medical Society meetings and the State Association meetings until his death. For a number of years Dr. Frontis was a member of the State Board of Health of South Carolina, showing his wide interest in preventive medicine by this service, but perhaps his real interest was at its best in his ministrations to his people in their sickness as a family physician. After all, is there a greater service one may render his fellow man?

Then a few weeks ago in another section of the State there passed Dr. W. R. Dendy of Pelzer. He ministered to his people fifty years or more and rarely missed a meeting of his County Medical Society. He was also faithful to organized medicine in its larger aspects, showing that by his presence at the District and State meetings whenever possible. It is given to few men in any vocation of life the privilege of doing so much for one's fellows as these two men did.

We are saddened also by the deaths of a number of other Association members, particularly some of them who are younger. Then there have been some deaths in the families of our members lately which have excited the keenest sympathy of the profession. We would not forget that the doctor's wife and his sons and daughters are equally a part of the great profession of medicine. In their passing the profession often loses invaluable inspiration.

MEDICAL COLLEGE REUNION TO BE HELD IN NEW ORLEANS AT SOUTHERN MEDICAL ASSOCIATION

Most of the members of the Southern Medical Association have their plans well under way to attend that great meeting the latter part of November, and among them will be hundreds

of graduates of the Medical College of the State of South Carolina. At different times during the meetings the Alumni present have held most interesting sessions, but this year it would seem that the occasion is of great promise for the largest get together ever held. To bring this to pass, Dr. Robert Wilson, Dean of the College, has appointed Dr. Jack Norris, of The Doctors Building, Atlanta, Ga., representative at large in charge of Alumni gatherings. Dr. Norris wishes to hear direct from every Alumnus who plans to be in New Orleans at that time.

CLARENDON COUNTY SENDS FIRST 1938 DUES

There is ample evidence that the smaller counties are taking a deeper interest in the State Association affairs. The Secretary has just received the 1938 dues from Clarendon County and a most appreciative letter about the work of the organization. It may not be amiss here in this connection to call attention to the recent amendment to the By-Laws fixing the dues at six dollars (\$6.00) per member for 1938, an increase therefore of one dollar. During the fall months quite a number of members, while paying bills generally, send in their dues in advance for the next fiscal year. We wish therefore to call attention to the increase for the coming year.

ANDERSON POST GRADUATE COURSE A GREAT SUCCESS. NEW PLANS FOR OBSTETRIC REFRESHER COURSES

The Post Graduate Courses at Anderson, as we have repeatedly stated, were initiated by the obstetrical refresher courses some four years ago, and the enthusiasm was so great that a larger program was demanded. For the past three years this plan has been carried out at Anderson and has been a phenomenal success. The attendance this year kept well up to and perhaps sometimes beyond the one hundred mark with a larger territory covered. Next year it is intended to extend this clinical assembly from every standpoint.

As we go to press, we are informed by the Division of Maternal Child Health of the State Board of Health that Dr. Lester A. Wilson, who is Professor of Obstetrics at the Medical College and who was a member of the Clinical Assembly faculty this year, by co-operation of the College and the Maternal and Child Health Division will give refresher courses throughout the State, the details of which are yet to be formulated. This is certainly good news to the large number of general practitioners who are members of the State Association. Dr. Wilson has had a distinguished career as a specialist in obstetrics and as a teacher at the College. The Journal will be glad to publish full information as to when and where these courses may be attended.

ORTHOPEDIC SURGERY

AUSTIN T. MOORE, M. D., COLUMBIA, S. C.

In this issue of the Journal the Department Orthopedic Surgery is introduced. We make our bow. Every surgeon in the state interested in this branch of medicine should feel pardonable pride at this recognition. This is another expression of the way in which this branch of surgery is coming into its own. The editor is especially grateful and wishes to express to the staff of the Journal his sincere appreciation for the honor of his appointment. It will be his policy to try and present in each issue something of interest and something helpful to

the general practitioner. From time to time representative men from within and without this state will be called upon to contribute an editorial article. In this way we hope to keep up a high grade type of information. But, of still further importance, we earnestly seek the encouragement and support of every practicing physician in this state. We welcome your criticism and especially will welcome your suggestions. We would like for you to write and ask questions which may be answered in the column. We would like for you to suggest interesting topics

to be discussed. We want you to consider this as your department, and we are soliciting your support.

Orthopedic Surgery as practiced today is comparatively new and even yet is not recognized and classified in some of our medical teaching institutions as a distinct departmental specialty. A number of our medical schools still place it under the professorship of general surgery. The practice of Orthopedics dates back into antiquity. It has been necessary to treat broken bones and other osseous lesions since the beginning of time. Hippocrates wrote rather extensively concerning orthopedic practices. He described various splints and braces which were in use at that time. An especially interesting contribution which he made was the devising of a very ingenious fracture table which he called his scammion. This table had attached to it various windlasses and pulleys for the application of traction and countertraction, and its use continued for centuries. Hippocrates understood most of the basic principles of orthopedics, but it might properly be said that until recently the practice of this specialty was carried on by a group of dignified "harness makers." There was very little cutting surgery, and most of the work consisted of the application of braces and splints, much as the brace maker is employed today.

Since the beginning of the present century tremendous advances have been made; and experiences afforded during the World War gave especial impetus to the work. From an humble beginning the specialty now has grown to real proportions. There has even been some discussion that the name should be changed. The derivation of the word is from the Greek roots, *orthos* (straight) and *pais* (child), or literally translated, the art of straightening the crippled child. But at the present this is only one of the phases of orthopedic work. The Journal of the American and British Orthopedic Association is not known as the Orthopedic Journal, but the Journal of Bone and Joint Surgery. Some surgeons prefer to be known as

Bone and Joint Surgeons but this term is not sufficiently inclusive. It is a problem to find a suitable name. A definition of modern orthopedic surgery might properly be something like the following: That branch of general surgery which deals with the treatment of conditions due to diseases or disturbances of bones, joints, muscles, tendons, fascia, skin, etc., impairing health, locomotion, or function, and occurring at any stage of life. This definition includes a multiplicity of conditions. In fact, the specialty is now so complex that likely it will before long be further subdivided. The number of accidents from modern high speed machinery and the demands of the recently created Industrial Commissions will very likely make the establishment of the specialty of Traumatic Surgery a necessity.

Who among us is best fitted to do orthopedic work? The answer is not necessarily the Orthopedist, but the man who is most interested and who takes time to prepare himself properly for the work. A man does not have to be called an Orthopedic Surgeon to do good bone surgery. This was forcibly impressed on me recently when I visited a neighboring city in consultation on case of fracture of the pelvis and acetabulum with central dislocation of the head of the femur. The surgeon had applied skeletal traction to the upper and to the lower end of the femur. He had had his local blacksmith build a special frame for the bed and traction was applied in two directions. It was a perfectly beautiful piece of work, and the condition had been perfectly corrected. That man understood all of the factors involved and was capable of meeting them. Another surgeon I visited recently had had his carpenter build a very clever frame for suspension of arm-fracture cases. A physician who handles orthopedic cases should be mechanical minded and possessed of a certain amount of ingenuity and creative ability. Besides the splendid Orthopedic Clinics with which our country is so richly endowed, there are many men now who have the above qualifications.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT NO. 342 (37185)

Case of Dr. LaRoche

April 23, 1937

Student Oliver (presenting case):

A 58 year old unemployed white man, admitted 12-26-36, died 1-11-37.

History: In July 1936 patient had a "cold in the chest" which failed to improve. Frequently had stabbing pain behind sternum or a choking sensation in chest. "In past few months breast has become swollen and painful." The condition became progressively worse. Shortness of breath occasionally for several months. Some swelling of right arm. Palpitation of heart. Has lost weight, exact amount not known.

Examination: Temp. 98, pulse 84, resp. 20, B. P. 110/80 in left arm, 130/100 in right. Short of stature, poorly nourished and developed. Eyes, ears, nose and mouth essentially negative. Lymph glands neg., thyroid not palpable. "Breasts—male." Chest: pigeon-breasted, with sternal protuberance. Lungs: "Breath sounds suppressed in right side with no rales. Dullness with decreased fremitus. Shifting dullness. Left chest: Breath sounds broncho-vesicular with no rales." Mediastinum widened to right and left. Heart: Point of maximum intensity of heart sounds in mid-clavicular line. Sounds clear, sinus arrhythmia, no murmurs. Abdomen: "Liver tender, no masses." Prostate and rectum not examined. Extremities apparently not examined. Patellar reflexes absent.

Lab: Urine (12/29, 1/8) Sp. Gr. 1.020; a/b 0-2 plus; sugar, acetone and casts neg., no R. B. C. or WBC. Blood (12/28, 1/8) Hb 76%D; RBC—4,200,000; WBC 9,800 and 8,900; polys 75-74%, lymphs 22-22%, monos 1-2%, eosinos 1-2%. Blood Kolmer and Kline neg. Pleural fluid (1/1/37) straw-colored, Sp. Gr. 1.023, blood 4 plus, pus 2 plus, organisms O, quant. albumin 3.5%. Pleural fluid (1/5/37) light yellow, slightly cloudy; cells 96% lymphs, 4% polys; guinea pig inoculated, autopsied 3-3-37 and found neg. for tbc, EKG and X-rays of Chest (8-7-36, 12-26-36); see chart.

Course: Temp. usually 98-99; pulse 80-110; resp. 18-28, not increasing. Chest exam. on 12/30: "dullness over entire right lobe with tubular breathing just below nipple in ant. axillary (line). Also tubular breathing at base posteriorly and up to within 2 fingers of scapular angle. Breath sounds are diminished." 95 cc. of straw-colored fluid withdrawn. Gradually became weaker, more dyspnoeic and occasionally irrational. On 1-4-37 B. P. in left arm 110/80, in right 134/104. 1-5-37 "No murmurs can be heard over the bulged area on chest wall and the mass does not have an expansile pulsation." About 50 cc. of fluid aspirated from right chest again. Cough and

choking sensation in chest when first awake on 1-7-37. Occasional stabbing or boring pain in chest. Coughed up a small amount of bright red blood on 1-9-37. Early in morning of 1-11 became very dyspnoeic, respirations irregular and gasping, pulse only fair. Died at 7:40 A. M., of 1-11-37.

Dr. Chamberlain (conducting): Mr. Baldwin, will you open the discussion?

Student Baldwin: The case is obviously one of mediastinal mass, and the differential diagnosis resolves itself into a discussion of the various conditions that can give a mediastinal mass.

One of the first things to come to mind is aneurysm. Aneurysm could give a bulging mass in the anterior chest wall and mediastinum. But against that is the lack of bruit over the mass, and the lack of expansile pulsation, and the blood Kolmer and Kline were negative.

Tuberculosis of the mediastinal glands could also cause these symptoms, but if that were the case, the pleural effusion should have also been tuberculosis. I am willing to rule out that diagnosis on the basis of the guinea pig inoculation.

The fact that the pleural fluid was bloody (or at least contained blood) suggests either tuberculosis or malignant tumor. Since tuberculosis has been ruled out, that leaves us with the diagnosis of malignant tumor of the mediastinum. The man is well within the usual age limits of malignant disease. Hodgkin's disease is a possibility, but it usually comes on earlier in life than this man's age. Too, with Hodgkin's disease, I would expect intermittent fever of the Pal-Ebstein type.

The commonest malignant tumor of the mediastinum is the lymphosarcoma, but I would not be able to make that diagnosis in the absence of obvious lymph gland enlargement and with a normal blood count. As far as I can go with the diagnosis is malignant tumor of the mediastinum.

Dr. Chamberlain: I saw this patient twice in my office before he was admitted to the hospital. That was in August, and he had had pain in the chest and a choking sensation since the winter before. I examined him and fluoroscoped him in my office, and thought he had an aneurysm. I had sent a blood Wassermann to the state laboratory, but the report stated that the blood was hemolyzed, so that did not help. I referred him to Dr. Rudisill of X-ray and fluoroscopy. Dr. Rudisill confirmed the opinion of aneurysm. As I recall, both his opinion and mine were based largely on the fluoroscopy, thinking that the mass could be seen to pulsate. I did not hear any abnormal sounds over the projecting mass.

Mr. Black, will you continue the discussion?

Student Black: To me this is a case of mediastinal tumor, and the lack of pulsation and of bruit make me think aneurysm unlikely, altho, of course, a large clot could have formed in the aneurysmal sac anteriorly and prevented these signs being apparent. Tuberculosis I have ruled out not only on the basis of the negative guinea pig inoculation, but also because of the negative findings in the lung proper, both on physical examination and on X-ray. My diagnosis is malignant tumor of the mediastinum, and of such tumors, lymphosarcoma is apparently the commonest.

Dr. Chamberlain: It is recorded here that there is a difference in the blood pressure in the two arms. Mr. Black, what do you make of that?

Student Black: I believe that would indicate only interference with the arterial blood flow in the mediastinum, and is compatible with any sort of mediastinal mass. But I remember a case we had here in conference a few weeks ago in which the blood pressure was unequal in the two arms, and there was absolutely nothing found in the mediastinum at autopsy to explain it.

Dr. Chamberlain: Mr. Blair, have you any comments?

Student Blair: I think that the real diagnostic problem existed before the laboratory work was done, and that aneurysm is ruled out by the negative Wassermann, and tuberculosis by the negative guinea pig inoculation, leaving only malignant tumor of the mediastinum.

Dr. Chamberlain: How do you interpret the tubular breathing?

Student Blair: I think that was a result of compression of the lung.

Dr. Chamberlain (demonstrating X-ray films): This first film was taken in August 1936, when I referred the patient, four months before his hospital admission. As you see, there is a large mass in the upper mediastinum, apparently continuous with the aorta, which Dr. Rudisill and I took to be a saccular aneurysm. This later film, taken in December, after his hospital admission, shows a large pleural effusion on the right and a smaller one on the left.

The electrocardiogram is not particularly significant. It shows low voltage in all leads, and that is about all.

The only two things likely in this case are aneurysm and malignant mediastinal tumor, and, as has been pointed out, the developments in the case toward the end, at any rate, suggest malignancy more than aneurysm. It seems that the opinion of the students is mediastinal malignancy of considerable size, with hydrothorax and compression of structures giving progressive interference with breathing.

Are there any comments from the staff?

Dr. Johnson: The pleural fluid has a high specific gravity and a high albumin content, apparently putting it in the "exudate" class rather than the "transudate." However, it is noted that the fluid contained a considerable amount of blood, and that may explain the specific gravity and the albumin content, without

these findings meaning that the fluid is an exudate of an inflammatory nature.

Dr. Robert Wilson, Jr.: The record is rather inadequate, especially as to the description of the mass which must have been present on the anterior chest wall. I suppose that this deficiency is due to the fact that the patient came in the day after Christmas.

Shifting dullness was apparently found in the chest. I doubt the reliability of that finding, because the dullness of pleural effusion does not shift with changes in position unless there is some air over it; in other words, shifting dullness in the chest must mean a hydro-pneumo-thorax, and the X-ray film does not show that, but merely hydro-thorax.

The pleural fluid findings are quite confusing to me. The fluid is said to be "straw-colored" and yet it contained four-plus blood; it contains two-plus pus, but the differential count showed 96% lymphocytes. Pleural fluid findings should not be recorded in that way. If a large amount of pleural fluid is placed in a centrifuge and shaken down at high speed, and the sediment is then examined, of course there will be a large amount of blood found. The estimation of blood in pleural fluid should be done by actual erythrocyte count on citrated pleural fluid, the dilution being the same in every case. And the notations of "two-plus" or "four-plus" pus should be discontinued, instead giving accurate differential counts. Otherwise pleural fluid studies are going to mean little.

Dr. Lynch: Mr. Baldwin, what is your conception of the manner of death?

Student Baldwin: I think he died of compression of the lung. If the condition had been an aneurysm of this size, it seems likely that he would have died of rupture and hemorrhage.

Dr. Lynch: Dr. Wood will present the autopsy findings, as he did the autopsy.

Dr. Wood: Externally there was a rounded swelling projecting from the manubrium and upper portion of the sternum. When this was sectioned into, it was found to consist of tumor tissue, extending directly through the sternum and costal cartilages from the mediastinum, where the greatest part of the tumor was located. There the tumor surrounded the aorta and the other large vessels of the mediastinum, and compressed the trachea anteriorly. Most of the mediastinal lymph nodes were lost in the tumor mass, but a few remained discrete. The superior vena cava was entirely occluded by tumor which had penetrated its wall, and the tumor grew downward within the vessel to end as a blunt projection into the right atrium. The tumor also extended upward within the vessel as far as the mouth of the azygos vein. Both subclavian arteries were patent, although somewhat narrowed, and the common carotid arteries on both sides were somewhat compressed. In the lower portion of the small intestine, in the ileum, there were several tumor nodules beneath the mucosa. I made a gross diagnosis of lymphosarcoma.

Dr. Lynch: The final diagnosis, after microscopic

examination, was lymphosarcoma, of the reticulum cell type. He died rather suddenly, probably when final thrombosis was added to the tumor mass in the superior vena cava so as to completely occlude it.

Now I think we should look back at the X ray. Our biggest lessons from conference cases can frequently be learned by looking backward and seeing if the diagnosis could be made.

To me, this is not a sharply defined, globular mass such as one would expect to see with aneurysm, but its margins are fuzzy, as if the shadow were made by an infiltrating tumor. To me, this film looks

more like a malignant neoplasm than it does like an aneurysm.

Dr. Chamberlain: Yes, it does seem so. I'm afraid that Dr. Rudisill and I were both fooled by what we saw or thought we saw on the fluoroscopic examination. And this brings out an important point; almost any mass in the mediastinum, if it lies against the aorta, will appear to pulsate because of the transmission of the aortic impulse through the solid tumor mass. Even an expansile pulsation can be accurately simulated; so this sign must be interpreted with a great deal of caution.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

To The Editor: Please discuss the use of vaginal antiseptics, such as 4 percent aqueous mercurochrome during labor, R. E. S.

Answer: The use of vaginal antiseptics during labor is not a new procedure. Antiseptic douches were used many years ago. More recently the intravaginal instillation of non-irritating antiseptics of the type of mercurochrome, neutral acriflavine, and bismuth violet has been suggested and used.

There are a number of theoretical objections to the use of these agents. In introducing them virulent bacteria from the vulva and lower vagina may be introduced into the upper vagina and cervix. These antiseptics are extremely mild in the concentrations used and are more bacteriostatic than bactericidal in action. Only on prolonged contact, if at all, will they destroy the usual virulent bacteria. They tend to create a sense of security which is not warranted, and their use will not replace a care and reluctance in invading the vagina for examination.

However, reports indicating their value in reducing morbidity are not lacking, and they are being used fairly extensively. Published statistics indicate a reduction of about 50 per cent in septic deaths after instituting the routine in some clinics. Although statistics are not available, the impression is that the intravaginal instillation of 4 per cent aqueous mercurochrome, repeated at intervals of six hours during labor, has definitely reduced the morbidity at the Greenville General Hospital. Its use is

not required, and it is not used by some of the courtesy staff. No septic deaths at this hospital have occurred where this technique has been used.

Neutral acriflavine 1 per cent glycerin is used in a similar manner at the Barnes Hospital in St. Louis. Much scientific research with regard to the vaginal bacterial flora has been done at this hospital. Their statistics seem to confirm the value of the use of this technique, and especially with regard to anaerobic organisms, which they have shown are largely responsible for the thrombotic type of puerperal infection.

The writer is familiar with no objection to the use of intravaginal antiseptics, which is supported by statistics. On the other hand, published statistics of instillations where the technique is in vogue, seem to indicate its definite value.

Question: Discuss the effect that uterine fibroids may have on pregnancy and labor. N. Y. Z.

Because of interference with normal development of the active or prenidial stages of the endometrium, uterine fibroids, and more particularly those of the submucous and deep lying intramural types, cause a definite tendency toward sterility. Implantation of the fertilized and developing egg either does not occur or is imperfect so that early abortion is likely. Should implantation occur in a normal manner, abortion within the first three or four months is likely, this being due to interference with

proper implantation, or to uterine irritability caused by the stimulation of the fibroid, it acting as an intrauterine foreign body. These statements do not apply to subserous tumors, and those of this type have little effect upon fertility or pregnancy.

After pregnancy has gone to term, the effect of fibroids upon labor may be of little moment or it may be serious. If the fibroid is so situated as to block the pelvic inlet or to largely fill the true pelvis, it may prove an unsurmountable obstacle to delivery through the natural passage. However, this is a comparatively rare occurrence. Usually, as the uterus enlarges during pregnancy, the fibroid is carried up into the abdomen, retaining its former relationship to the uterine fundus. If this does not occur and if at the beginning of labor the tumor is obstructive, the situation is still not hopeless. As labor progresses and the lower uterine segment is formed, the obstructive fibroid is usually drawn up out of the true pelvis. If this does not occur, it can frequently be pushed up from below by the doctor. However, until the pre-

senting part has engaged or until one is reasonably sure that it will engage, the vagina should not be invaded by the examining finger. The possibility of the necessity for cesarean section must be borne in mind.

There is likely to be no trouble after delivery. The patient must be watched carefully for excessive bleeding, as the fibroid tumor may interfere with strong and uniform uterine contraction. At times the placenta is not quickly and spontaneously expelled, and it may require manual removal.

Involution of the uterus after delivery will be considerably slower in cases of uterine fibroid, but this should occasion no concern.

To sum up, then, the mere presence of fibroids is not an indication for cesarean section. The chances of normal uncomplicated delivery and puerperium are good. Myomectomy and hysterectomy are much more safely performed at a later time, and because one or the other of these operations seems indicated, is not a valid reason for delivery by cesarean section followed by either of them.

NEWS ITEMS

Dr. Malcolm Mostellar of Columbia resumed work October 1, after a leave of absence since September 16, 1936, in order to pursue further studies at Johns Hopkins. His special post graduate work in radiology for the past year was under Dr. J. W. Pierson with special attention to deep therapy and radium therapy. While at Johns Hopkins, Doctor Mostellar was made First Assistant radiologist to the Johns Hopkins Medical College and received special training under Dr. B. P. Widman of Philadelphia General Hospital and Dr. Curtis Burnham of the Burnham Kelley Hospital in Baltimore, Maryland.

Dr. George R. Wilkinson and Dr. J. F. Rainey both of Greenville spoke to the Greenwood County Medical Society at their meeting, Thursday night, September 30. Dr. Wilkinson spoke on "Abdominal Manifestations of Cardiac Disease" and Dr. Rainey's subject was "Extra Cardiac Causes of Heart Failures."

Dr. L. B. Owens, Mayor of Columbia returned to Columbia, September 20, after a trip to Philadelphia, New York and Long Island to take part in the Mayor's day program of the celebration incident to the 150th anniversary of the Constitution. He said this about the exercises.

"We were received in the city hall and in buses we went to Independence Hall where we saw many historic articles. We inspected the old chairs and other articles of furniture. With a pen said to have been used in signing the Constitution we signed our names and were all given pens similar to the one used in placing our signature on the roll. We were shown various points of interest about Philadelphia.

Dr. James A. Hayne, State Health officer and Dr. Robt. W. Ball, Director Maternal and Child Welfare of the State Board of Health, addressed the Lions Club of Marion, S. C., Monday night, September 20.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

THE TANNIC ACID-SILVER NITRATE TREATMENT OF BURNS

The use of tannic acid marked a great advance in the treatment of burns. It prevents to a great extent loss of body fluids; it reduces markedly the secondary infection of the burned surface; it makes the patient comfortable; it does away with the necessity of frequent dressings. On the other hand, it has several unfavorable features. Continuous application of tannic acid solution is necessary for 10-20 hours until a firm eschar forms. During this period there is considerable loss of body fluids. There is danger of infection entering the burned tissue. Tissue damage and edema continue until the eschar is formed; likewise toxic products are absorbed. The coagulum forms slowly and often involves uninjured epithelium, thus delaying healing.

To obviate to a great extent these unfavorable features—or better, to improve upon the results of the tannic acid treatment, Dr. A. G. Bettman, of Portland, Oregon, (J.A.M.A. 108:1490) (May 1, '37) has proposed a modification which he terms the Tannic Acid-Silver Nitrate treatment of burns. The patient is given narcotics as necessary; fluids are forced. The

burned surface is cleansed; blebs are opened, and dead skin removed; ether or benzene may be necessary should grease or oil have been applied. A through application of 5 per cent tannic acid is now made over the burned surface. This is followed immediately by an application of 10 per cent silver nitrate in the same manner. The patient is now placed under a tent heated with electric light bulbs, and the burned surface is dried and kept dry. A firm coagulum forms within a few minutes. In a few days this loosens and is removed. Large areas will be found to be entirely healed. Unhealed areas are treated by the application of oxyquinoline sulfate Scarlet R gauze over which a light pad of dry gauze is placed. Among the advantages claimed for this method are: there is less fluid loss and absorption of toxins; there is less time and chance for infection to enter; the coagulum is more flexible and thus less apt to constrict the circulation of digits; the patient is comfortable sooner; the nursing care is greatly reduced. The advantages are attributed in great part to a coagulum which is more rapidly formed and is thinner and more flexible than that with the tannic acid alone.

NEWS ITEMS

Among those attending the Radiological Conference which was held in Chicago recently were Dr. T. A. Pitts and Dr. Malcolm Mostellar of Columbia, Dr. W. S. Judy of Greenville and Dr. R. B. Taft of Charleston. Dr. Taft had the honor of being awarded the silver medal for scientific research.

Dr. Marion H. Wyman of Columbia has been notified of his promotion from Lieutenant Colonel to Colonel in the Medical Reserves, United States Army.

Friends of Dr. S. Jack Blackmon of Kershaw and Dr. W. R. Blackmon of Rock Hill sympathize with them in the death of their mother,

Mrs. W. T. Blackmon of Kershaw, September 30, after a lingering illness. Funeral services were conducted Friday afternoon, October 1, at the Pleasant Plains Baptist Church.

Dr. C. T. Bullock, a member of the Staff of the South Carolina State Hospital, and who has been devoting some of his time in the surgical department of the hospital received notice, September 27, from Dr. George Crile, Chairman of the Board of Regent, American College of Surgeons, that he had passed requirements and had been accepted to full membership in the College. He was notified to be present in Chicago the afternoon of October 25 at which time Fellowship will be conferred.

DR. D. B. FRONTIS

AN APPRECIATION

By

Geo. A. Traylor, M. D., President Medical Association of Ga., Augusta, Ga.

In the passing of Dr. D. B. Frontis, of Ridge Spring, the medical profession of South Carolina has lost one of its outstanding members, and those amongst whom he labored a good friend, a wise counselor, and an honest and capable physician. For 57 years Dr. Frontis practiced medicine in the Ridge section, and by the young as well as his contemporaries was held in highest esteem, not only for his professional ability but for the earnestness with which he went about his daily tasks and his noble Christian character. It is not given to every community to have one of Dr. Frontis' attainments minister to its people for the length of time he did; and, it is needless to say, his kindly attentions and understanding and consoling advice will be missed.

To the last he availed himself of every opportunity to become acquainted with the rapid developments in his profession, and was ever alert to select the proven forms of diagnosis and treatment. He was not a machine diagnostician but employed those talents of mind with which nature so richly endowed him.

His family have the knowledge that he succeeded in his chosen field, and leaves them the heritage of an honored name, and he lived a life of service to his fellow man of which they can justly be proud, and which all should strive to emulate; and his patients a loyal, faithful and learned physician. He was an ideal family doctor, and may his kind never be driven from our ranks.

He certainly merited the tribute paid physicians by Robert Louis Stevenson:

"There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not infrequently; the artist rarely, rarer still, the clergyman; the physician almost as a rule. He is the flower (such at it is) of our civilization; and when that stage of man is done with, and only to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those that practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculean cheerfulness and courage, so that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing."

MEETING OF THE UROLOGICAL ASSOCIATION OF SOUTH CAROLINA TO BE HELD IN COLUMBIA,

OCTOBER 13, 1937

The Urological Association of South Carolina will hold its annual meeting at the Hotel Columbia, Columbia, S. C., on Wednesday afternoon, October 13. The meeting will begin at 3 o'clock. An interesting program has been arranged and the physicians of South Carolina are urged to attend.

The afternoon program is as follows:

1. Dr. Steven W. Davis, Charlotte, N. C., "Fever Therapy Problem in the Treatment of Gonorrhea."
2. Dr. Paul Sanders, Charleston, S. C., "Acute Suppurative Nephritis."

3. Dr. Mordecai Nachman, Greenville, S. C., "Management of Urological Conditions in Children."

The evening program is as follows:

1. Dr. Jefferson C. Pennington, Nashville, Tenn., "Management of Calculae in the Upper Urinary Tract."
2. Dr. E. G. Ballenger, Atlanta, Ga., "Management of Tumors of the Bladder, both Benign and Malignant."

There will be a banquet held before the evening session. The officers of the Association are as follows: Dr. W. B. Lyles, President, Spartanburg, S. C.; Dr. E. E. Herlong, Vice President, Rock Hill, S. C.; Dr. Mordecai Nachman, Secretary-Treasurer, Greenville, S. C.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

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Sept. 7, 1937

A MESSAGE FROM YOUR PRESIDENT:

My Dear Auxiliary Members:

The time has come for us to think seriously about our Medical Auxiliary work. As we begin a new year, we are met with a challenge to push on to still greater achievements during these next few months.

We need a greater appreciation and confidence from the Medical Profession to do our best. We need also a new confidence in ourselves, a new spirit of sacrifice, team work, loyalty, and cooperation.

I should like to stress the importance of co-operation, a close contact and sympathetic understanding between the three units of the Medical Auxiliary—County, State, and National, so that supported and helped by each other we will achieve greater success. Without the County Auxiliaries there would be no State or National Organizations. Not only the Auxiliaries but each member must carry in her heart the truth that she is a part of a unified whole to which she can be either a help or a hindrance. Today we have a great opportunity

for service; never before in the history of medicine has the doctor's wife been given such an important part in the development of health measures advocated by the Medical Association in South Carolina.

The mid-year Board meeting was held in Spartanburg, September 23rd. You will receive a list of our objectives and activities for the year. Do not be discouraged if you are not able to accomplish all of them at one time. It takes time, steady and serious work to accomplish our goal.

The names of our State Chairman and Officers have been sent to the National Chairmen; also the names of the State Officers have been placed in the hands of the County Presidents. Please contact them for any help or information you may need; they are always ready to serve you at any time.

In closing I would say that the Auxiliary is a service organization and our program is health education first, self-education so that we may promote health education.

Wishing each of you a pleasant and satisfying year of Auxiliary work.

I am,

Yours most sincerely,

Edna Hipp Willson

Mrs. Jesse Willson, President

WHY AESCULAPIUS AND WHY HYGEIA?

I wonder if all of us know, just why, throughout the world, the serpent twined around a rod is used as a medical symbol! If we do not know, we should know, and for this reason I am trying to tell you. This symbol is called Aesculapius or Asklepios.

On the medical journals often it is displayed. On the radiator of physicians cars we behold it. In the army, the navy, the marine, this symbol adorns the physician's outfit—usually one on each coat lapel. The privates and all the officers know he is a physician, but I wonder if they

know why such a despicable thing as a serpent is used to identify the physician!

It seems to me that this is of some importance. Suppose you were traveling and your car, for some unknown reason suddenly stopped, dashing your child into the windshield, cutting it badly—maybe a blood vessel. Along comes a car with this symbol and out steps a man with such a symbol on his lapel! "O Doctor, I'm so glad it's you! Please do what you can for my child." "How did you know I am a doctor?" "I saw Asklepios, and I knew at once." Many instances might be cited. But why such a symbol?

Ancient Greeks worshiped Mother Earth as the chief deity as early as 8,000 years ago. She was the giver of all mortal goods, and contained mystic hidden powers. The snake, coming out of the ground, was early related to Mother Earth and her power. It was believed to possess the magic of prophesies, dreams and healing.

In Greek myth, Aesculapius is the son of Apollo and Coronis. The Centaur, Chiron, trained him to such expertness in the healing art that he finally raised the dead, for which Zeus slew him. This god Asklepios (Aesculapius) was worshiped as an earth power, as a reliever of disease and giver of health. The snake became the symbol of the under world powers and an aid to physicians who, it was thought, used the serpent tongue as a therapeutic agent. Thus the serpent, mysterious product of the earth, became a ritualistic symbol. Aesculapius is usually represented as a bearded man with an attendant serpent.

In 291 B. C. a myth relates that Asklepios was taken to Rome in the form of a serpent to allay the plague raging through the city. The Romans took up the Asklepieian cult, and thence the legend of the serpent spread throughout the world as a famous symbol of healing. Spacious temples were erected in Ancient Greece and called the Asklepieia. They were used to some extent for religious purposes, but were very important medical centers, hospitals and health resorts. The Asklepieia at Epidauras was one of the best known. The temples were built on elevated locations enclosed by beautiful gardens and woods. The wealthy were permitted to erect a private tent on the temple grounds in order to seek relief from disease. The priests of the temples were the healers.

The patients, upon entering the Asklepieia, were made to bathe in salt water and clear water. They prayed for the cleansing of their souls, and brought offerings of "Popana" to the sacred nonpoisonous snakes who were always companions to the priests. Other offerings to the gods, such as a sheep or a cock, were popular. The patients remained in the temples day and night until healed, always dressing in white and occupying individual couches. A combination of prayer to Asklepios or other gods of health and the mystical powers of the snakes, were responsible for the cures. Those who were not cured were believed to be impure of souls.

About 410 B. C. Hippocrates, the son of a temple priest, and himself a profound thinker, led the youth of Athens into a new trend of medical practice. He taught that to discover the nature of the disease and to conquer it was far better than to rely upon the gods. He said, "To know is one thing; merely to believe one knows is another. To know is science, but merely to believe one knows is ignorance." Hippocrates is called the Father of Modern Medicine.

Why is the magazine of the American Medical Association called Hygeia? Hygeia is a Greek word which means "Sound, Healthy." The magazine strives from every viewpoint to promote health. To make sound, healthy citizens of America. In myth, Hygeia is the Goddess of Health, daughter of Aesculapius, with whom she was often worshiped.

Mrs. W. P. Timmerman, Batesburg, S. C.
President Ridge Medical Auxiliary

RIDGE MEDICAL AUXILIARY

The Ridge Medical Auxiliary does not take a vacation. Interesting programs are carried out at each meeting. Mrs. W. P. Timmerman read a paper which the Ridge Medical Auxiliary enjoyed and I thought others would find some of interest on "Why Aesculapius and Why Hygeia." At our August meeting we served the members of the Ridge Medical Association with a delicious chicken supper at the home of Dr. and Mrs. W. P. Timmerman. Our Auxiliary is busy now trying to get up money for the Student Loan Fund.

Mrs. E. C. Ridgell, Secretary

SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

Bilateral orbital granuloma, by J. F. Townsend. Charleston. J. A. M. A. 108:1705, May '5, 1937.

Report, with photographs, of an extreme instance of this condition. Operative removal was followed by the death of the patient.

Therapy of Wills tumor, by J. I. Waring. Charleston. Review of Tumor Therapy. 1:71, August, 1937.

A brief summary of treatment advocated.

Studies in syphilitic cardiovascular disease, by R. Wilson, Jr. Charleston. Am. J. Med. Sci. 194:178, August, 1937.

Two hundred and eleven cases of syphilitic aortitis have been analyzed. In practically every case in which cardiac or respiratory symptoms were present they have been shown to be due to some factor other than uncomplicated syphilitic aortitis.

The basis of selection of medical students, by R. Wilson. Charleston. South. Med. J. 30:226, September, 1937.

A discussion of this question which emphasizes scholastic accomplishment in the applicant's academic years as the basis of selection but other factors are nearly as important.

The diagnostic significance of misplaced apex impulse, By W. A. Smith. Charleston. Internat. Clinics 2:193, June, 1937.

Seven cases in which the finding of a misplaced apex impulse was of considerable diagnostic value in diseases of the chest. The frequency with which such a sign is overlooked or disregarded seems justification for its consideration and evaluation.

Traumatic rupture of both walls of the bladder and rectum, by J. J. Ravenel. Charleston. J. of Urology 37:796, June, 1937.

A case of an unusual accident which caused a bladder injury and the excellent result obtained by treatment.

Sincerely yours,

Annabelle W. Furman, Librarian

SOUTH CAROLINA PEDIATRIC SOCIETY 1937

Dr. William Weston, Pres.
Columbia, S. C.

Dr. Lesesne Smith, Jr., Sec.-Treas.
Spartanburg, S. C.

Dear Doctor:

The Society is extremely fortunate in having one of the most eminent pediatricians in America to lecture to us on Monday, October 11, 1937.

PROGRAM

4:00 P. M. Business Meeting—Columbia Hotel
5:00 P. M. History of the Vitamines—Dr. Isaac A. Abt.
7:00 P. M. Dinner—Columbia Hotel
8:30 P. M. Meeting in conjunction with Columbia Medical Society. Address: "The Management of the New Born Infant," by Dr. Isaac A. Abt.

The pediatricians will serve on the reception committee and all are urged to be present.

D. Lesesne Smith, Jr., M. D.
Secretary and Treasurer

BOOK REVIEWS

A TEXTBOOK OF MEDICINE: By American Authors. Edited by Russell L. Cecil, A. B., M. D., Sc. D., Professor of Clinical Medicine, Cornell University Medical College; Associate Attending Physician, New York Hospital, New York City. Associate Editor for Diseases of the Nervous System: Foster Kennedy, M. D., F. R. S. S., Professor of Neurology, Cornell University Medical College; Director Department of Neurology, Bellevue Hospital, New York City. Fourth Edition, Revised and Entirely Reset. 1614 pages with 42 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$9.00 net.

This work in plan and in execution gives one an excellent presentation of what some of the best doctors and professors in the United States, consider knowing in Medicine.

It is up to the minute, discussing various drugs and procedures brought forth within the year.

There is very little that is controversial.

At the end of each subject there are abundant references in readable type.

Although a rather large volume, each article is remarkably concise. And yet clarity is not sacrificed. Most of the subjects are easily read, and read with interest. That is even though strictly scientific, the style is not involved nor pedantic and there is no padding.

The Editor, the Contributors and the Publisher deserve the support and approbation of the Profession.

R. M. Pollitzer, M. D., F. A. A. P.

Sept. 15, 1937.

NEWS ITEMS

The attention of the physicians of South Carolina is again called to the annual celebration of Founder's Day at the Medical College to be held on November 4. The program has been arranged very much at it was last year, and will include clinics and demonstrations during the morning and afternoon and a banquet in the evening. The guest speaker for the occasion is Dr. Irving Cutter, Dean and Associate Professor of Medicine of Northwestern University, Chicago. He will be the chief speaker of the day and will also speak at the banquet. Other well known men will contribute to the program. As usual, a large attendance is expected and the profession of the state is cordially invited.

Dr. Robt. W. Gibbes, who recently returned from a trip around the world, spoke to the Columbia Civitan Club, October 4, on present conditions in China and the hostile relations between this country and Japan. He visited both countries on his recent journey and in addition to the talk, exhibited motion pictures taken during his visit. Dr. Gibbes declared that while his sympathies were entirely with China in the struggle, Japan was only doing what other leading nations had done and that there

was much to be said in favor of the Japanese cause. The doctor pointed out that the reel he showed the club was not the best he secured on his Oriental visit but that it showed conditions in Shanghai just prior to the outbreak of the conflict. He said he was only in Shanghai one day. During the screening of the film, he pointed out various places of interest such as a \$25,000,000 municipal center, some are now in ruins. The picture showed life on the river boats, various Chinese amusements, life on the streets and other interesting points in the daily routine of the Chinaman.

Dr. W. S. Lynch, well known Lake City physician, was host Tuesday night, October 3, to a group of 23 of his friends at a barbecue dinner in celebration of his birthday. During the delightful meal toasts were given by a number of the guests.

Dr. Hugh Wyman, Urologist, of Columbia, spoke Tuesday, October 5 in Atlanta before the Atlanta Medical Society and Wednesday, Oct. 6, in Macon before the Georgia State Medical Society. His subject for both addresses was Artificial Fever.

Dr. Francis E. Salley, 28 year old Lancaster physician, died early September 23, the victim of an automobile accident. Injured when his car left a highway on a curve near Lancaster about midnight, Dr. Salley was rushed to a Charlotte Hospital but lived only a short time. He was graduated from the Medical College of South Carolina at Charleston in 1935 and served as an interne at the Spartanburg General Hospital. For the last year he had been associated with his half brother Dr. C. W. Morrison in the operation of a Clinic at Lancaster. He was a member of the Kershaw County Medical Association and the South Carolina Medical Association.

Dr. Isadore Schayer was named on Sept. 8 by a special committee on student health of the Board of Trustees of the University of South Carolina as acting Resident Physician and Dr. J. Heyward Gibbes, Internist, and Dr. George Benet, Surgeon, were named consultant physicians on the University Medical Staff. Doctor Schayer has been head of the Department of Hygiene at the University for a number of years.

The Fourth District Medical Association will meet in Seneca, S. C., the latter part of October under the Presidency of Dr. C. H. Young of Anderson. All communications in regard to this meeting may be addressed to Dr. George R.

Wilkinson, Secretary, 202 Brown St., Greenville, S. C. The Fourth District Society is the largest District Society in the State of approximately three hundred members. The program to be of extraordinary interest.

REPRINTS!

Type used in each issue of The Journal is held for thirty days and in order to get the benefit of this saving, orders should be received within this time.

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Greenville, S. C.

THE JOURNAL

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South Carolina Medical Association

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November, 1937

NUMBER 11

THE PHYSICIAN AND THE PUBLIC HEALTH

By

LEON BANOV, M. D., CHARLESTON, S. C.

In ancient days, when men fought wars, they were fought mainly on the grounds of religion. Then later, man fought battles to bring about changes in law. Still later, until quite recently, wars were fought for commerce, and now, if we may read the signs aright, men go to war to sanitize countries and people.

The rapidity and extent of the development of preventive medicine during the last three or four decades, and the general acceptance of the public health movement in recent years, is an amazing phenomenon of our time.

The modern public health movement is the natural outcome of the many scientific discoveries in the various fields of preventive medicine which followed the researches of Pasteur, Koch and the other pioneers of science who with their labors and discoveries paved the way for this popular movement; but it was due to the altruistic vision and the unselfish leadership of the practicing physician that this great movement really developed.

Almost without exception, the men who guided public opinion towards creating health departments were physicians, and it was in practically every instance, physicians who developed these health departments to their present state of efficiency.

Pasteur was a chemist, and a number of research workers who discovered facts in preventive medicine were not physicians, but in nearly every instance it was a physician acting as health officer who made practical application

of this knowledge in the development of the modern public health program.

With these facts in mind, it is difficult at times to understand the apparent apathy, the general indifference, and in a few instances the actual opposition on the part of private practicing physicians towards the community public health program, especially in the face of the phenomenal popular acceptance of sanitation and hygiene and everything that appertains to preventive medicine.

The answer, of course, lies in the strict conservatism of the average physician, who has been taught, even from the earliest of his student days, that his primary concern in life was the cure of the individual sick and the treatment of the individual injured. It was therefore quite natural that the practicing physician continued to think only in terms of the individual patient, and steadfastly refused to establish clinics for the examination of apparently healthy persons, or for the wholesale vaccination and immunization of people against disease.

In the same way it was quite natural, as a result of the remarkably rapid development of the public health movement, and the equally rapid acceptance of this movement by the general public, that official health agencies, and even unofficial ones for that matter, in their enthusiasm, and in the absence of such facilities, should establish clinics and should by popular education create greater demand for such preventive services.

It is also quite understandable that with such a rapidly growing movement as public health turned out to be, certain health officers in their excessive enthusiasm and overzeal forgot boundary lines for their endeavors, and sometimes encroached on the domain of private medicine and that such encroachments were

followed by natural resentments on the part of physicians with the occasional bringing out of the old bogey cry of "State Medicine," with all of the imaginary horrors that go with such an imaginary ogre.

And then again suspicion against the expanding public health movement was more than a little aggravated during the trying depression days of 1929-'30 and '31, when private physicians saw their incomes dwindle while the public clinics steadily grew as more people became impoverished and unable to pay a physician. Now that the "smoke of battle is clearing away," we can get a clearer perspective of the situation, and we find a much better understanding than ever before existing between the physician and the health officer; and we see a clearer, if not a clear cut, line of demarcation between the fields of preventive and curative medicine.

Public health has during the past two or three decades developed into a specialty of medicine—just as much a specialty as eye, ear, nose, and throat work, or as surgery. That being the case, there are bound to be certain borderland zones between general practice and public health. The problem of relationship between the health officer and the physician has largely been solved, however, by the public health official limiting his work strictly to preventive medicine, and leaving curative medicine entirely in the hands of the private physician.

The private physician, on the other hand, not willing himself to carry on preventive clinics for large groups and yet realizing that the public demands them for the poorer element, while at the same time realizing that the people in the upper economic levels will always prefer to be immunized by their own family physician rather than be herded like cattle through time consuming group clinics, is beginning to accept the health officer as an ally, rather than an antagonist, especially when even the most prejudiced of physicians will favor and approve the sanitation programs and the protection of water, foods, and milk supplies and the various other protective services rendered by the modern health department.

The private physician, of course, whether he wishes it or not, must to a great extent practice preventive medicine in the every day routine of his profession.

Every case of malaria which the practitioner cures is a focus of disease eliminated, from which the infection might otherwise have been carried with the aid of an anopheles to other persons. Every case of syphilis that he treats represents one focus of infection less, and the same is true of tuberculosis and hookworm and the acute contagious diseases.

Regarding the latter, it is really the general practitioner who first sees communicable disease, and it is upon his diagnosis that the fate of the community depends as to the spread of this particular disease; and although the quarantine and precautionary instructions are in organized communities attended to by the health department, it still is largely the influence of the family doctor that makes the quarantined family obey or disregard quarantine.

So you see, whether we wish it or not, the practice of medicine and the practice of public health are both intimately tied up together, and are to a great extent interdependent. There should be little or no points of difference between the practitioners of medicine and public health, and the few points of friction that do arise, arise either because of some petty acts of tactlessness and lack of judgement on the part of the health officer, or a lack of understanding on the part of the physician.

Now as regards the tact and the judgement of the health officer, as long as he is going to be selected to his office by political preferment rather than for personal qualifications, we may expect good, bad and indifferent health officers, depending almost on the whims of chance. But where an official shows a sincerity of purpose, an honest zeal, and a sympathetic attitude of understanding towards the medical profession, he is most apt to accomplish a great deal of good in his community with the backing and the aid of the medical profession.

On the other hand, if he shows an arrogance of power, or a greater interest in local politics than in public health, he will not only antagonize his medical confreres, but will most probably fail to accomplish his aims in the community.

The private physician, on the other hand, if he has kept abreast of the times, will realize that he is living in a period of upheaval and

overturn, when the "old order changeth and all things are new," and that public health is definitely a product of this social revolution; that he cannot like Joshua command the sun of evolution to stand still. Neither can he imitate Canute and vainly try to halt the tide of changing social conditions. The private physician will therefore accept public health and attempt to guide it along *sane* and *sound* lines of procedure.

Up to this point, I have presumed that the average physician is interested in public health because of the high ideals of his profession, and because the very existence of public health is a monument to the altruistic spirit of medicine, the only profession in the world which is constantly attempting to make themselves unnecessary by stamping out diseases from which physicians make their living.

It might be in order now to suggest that not all physicians are completely convinced as to the wisdom of the public health movement and some are perhaps selfishly concerned lest these preventive activities will ultimately affect their individual practice.

To this group I might point out that any movement which succeeds in preventing those diseases that have in the past killed out babies, children, and young people, is going a long way towards furnishing them with older groups of patients with their degenerative diseases, and their ability to pay their physician for keeping them alive and treating their maladies. In that respect, public health is preserving the "goose that lays the golden egg," because people who pass the age of 40 are not only concerned about their health, but are usually able to pay a physician for his services to them.

By the same token the public health movement that aims to reduce the maternal death rate is attempting to train the mothers of the community to employ a physician instead of a midwife, and to see that physician in the early stages of pregnancy.

In the same manner the parents of the pre-school child are directed to the family physician and the specialist and the dentist in an effort to have the youngster's physical defects corrected before he enters school. And the school child is likewise directed to the doctor and the dentist. Thus is a community trained from childhood on

to visit their doctor and their dentist at frequent intervals even for minor ailments, rather than wait for a serious breakdown.

It requires little or no vision on the part of a doctor to recognize the fact that a certain amount of corrective work fostered by the public health forces is a definite *asset* to his professional and financial interests.

And pursuing this thought further, it is quite possible for the physician of the future to be as much interested in preventing diseases in his patients as he is today in curing them. At least one branch of medicine has already adopted this type of practice. The pediatricians devote at least as much of their time to seeing well babies as to treating sick ones; and it would seem to me that the average pediatrician would make a rather poor living at best if he limited his practice to the cure of sick babies only.

As a final argument to the physician who looks with a certain amount of suspicion upon the ultimate effects of public health upon his practice, I might remind him that in practically every instance the prosperity of the physician depends upon the prosperity of the community in which he lives and practices. I might also point to a fact that has been verified by statistics over and over again: that the physician is subject to economic pressure the same as other folks, and that the number of physicians to the population actually varies directly with the per capita wealth and other evidences of material prosperity.

Any malaria-ridden section may support a few physicians. But only after that section is properly drained and malaria entirely driven out, is it possible to develop a more prosperous community that will support a large population and a large group of physicians.

In conclusion, I want to point out that public health is a product of organized medicine and that the health officer is or should be a physician practicing his specialty with the aid, the cooperation, and the backing of his profession.

There should no longer be any points of friction between the health officer and the private physician, because it is comparatively easy to draw lines between the fields of preventive and curative medicine.

Several decades of practical experience have taught the health officer the health needs of a

community, and the best way to meet those needs.

If he has resorted to wholesale vaccination and immunization clinics in an effort to stamp out diseases, he has done it only because the practicing physician has refused or failed to do this work. The same is true as to other phases of public health work; and wherever the private physician has attempted to do preventive work, he has had the earnest support of the health officer.

The private practitioner has always done a certain amount of preventive medicine, and the trend is definitely to his doing more and more of it, as the public is getting to accept and demand this type of practice.

Medicine of the future will concern itself with the causes of disease with special reference to prevention, so that we will eventually diminish or eliminate a great many of the ills to which human flesh is now heir.

SOME OBSERVATIONS ON OSTEO-MYELITIS OF THE MAXILLA IN INFANTS WITH REPORT OF A CASE

By

J. W. JERVEY, JR., M. D., GREENVILLE, S. C.

It was believed when this investigation was entered upon that there would be something very unusual and quite interesting to record, but so much is written where, with rare exception, so little need be said. After a considerable amount of study, search, and inquiry, the results are presented as a review of a rather extensive literature, the correction of some manifest errors (possibly the making of a few more), and the expression of an occasional thought which it is hoped may serve to arouse the reader's interest in this communication concerning an easily recognized clinical entity of somewhat uncommon occurrence.

The accordant title of this paper was chosen for the simple purpose of trying to avoid confusion in the literature on the subject. Despite the howls of many to the contrary, there is yet, it seems, considerable doubt as to the

presence of true bone marrow in the maxillary bones of infants. The question is largely of academic interest, as we are quite familiar with the clinical entity, regardless of its meticulously accurate histo-pathologic picture, which, in so far as it has been possible to determine, has not been satisfactorily described. Nevertheless it is of interest to review the opinions of others and satisfying to draw one's own conclusion. A great deal of work has been done on the development of the maxillary bone, but microscopic description is lacking in monographs on the subject and, of many consulted, no text book on anatomy gives the slightest space to histologic structure. Also in texts on embryology there is a strange paucity of references to this question. It would seem that the presence of bone marrow in the maxilla has been accepted as axiomatic, but the proof is not yet.

Brown Kelly (4), who in 1904 in England wrote an excellent and often quoted paper on this disease, seems to have been rather uncertain as to whether the condition is a periostitis, (the maxilla, however, has virtually no periosteum (15)) an osteitis, or an osteomyelitis. In 1912, Gilmer (5), discussing a paper by Babcock, appears to have been the first in this country to suggest that kindred disease in the mandible should be known as a suppurative osteitis because of the absence of bone marrow. In an article published in 1929, Davis (12) gives considerable space to the argument, basing his contention for the use of the term osteomyelitis on a fine and apparently unwarranted distinction in the meaning of the word myelin. According to Whiting and Stimson, he says, myelin means all soft parts which contribute to the nourishment of bones. He refers to myelin as a substance, as an element or organ, and finally as cells, and his argument is not convincing. In the same year, Wilensky (15), writing on osteomyelitis of the jaws makes the statement, "In both the upper and the lower jaw there is no true marrow cavity." In Germany in 1933 Riegele (17), in a rather extensive treatise, gives one line to the statement that histologic study shows the presence of hemopoietic bone marrow in the maxillae of the new born. No further description of the microscopic picture appears to be given, although the work is profusely illustrated with macroscopic drawings to

Candidate's thesis for the Laryngological, Rhinological, and Otological Society.

show the presence of marrow. He agrees with van Gilse that a marrow cavity is not consistently present. After examining sections of young fetuses including human, rat, and cat material, Jordan (21) states, "The small areas of cancellous bone show only a wide meshed connective tissue with numerous osteoclasts but neither developing red cells nor granular leucocytes. I should be willing to give it as my opinion that this bone, certainly after earliest infancy lacks hemopoietic bone marrow." Until it is proven indisputably that true bone marrow is present, suppurative osteitis is presented as the more nearly accurate descriptive term.

White (20) as late as April, 1935, states that only thirty-six cases are reported in the literature. In the material at my disposal definite reference has been found to at least sixty cases, the utmost care having been taken to eliminate duplicate references. Of these, three appear to have been bilateral (7, 10, 20). Besides the case which is here reported I am familiar unofficially with one other unquestionable case in a luetic family in my own community. This case has never been reported. While many men have practised for years without seeing a case, osteomyelitis of the maxilla in the new born is probably not a rarity.

Alexander Douglas (3) has wrongfully been given the credit for the report of the first case in England in 1898 (14). In no paper save that by Kelly, so far as could be ascertained, has credit been given to G. A. Rees (1) for his clear cut case in 1847. In neither report was the title "Osteomyelitis of the Maxilla" used, but both were of children about three weeks old and there can be no doubt as to the entity described in each. Douglas himself gave credit to D'Arcy Power for a previous report in the British Medical Journal and said that Power stated he had been able to find only one case reported, and that fifty years before his own. This reference must have been to Rees, although no name is given. He was apparently not familiar with the report by Dujardin (2) in 1888 of a case which is generally accepted as one of osteomyelitis of the maxilla although it was described under the title of "Phlegmon of the Orbit in a Newborn." Posey (6) in 1912 seems to have been the first to describe a case in this country.

Considerable argument has centered about the pathogenesis of this disease. Wilensky (14) is convinced that practically all cases are hematogenous in origin, some trauma in the mouth, or some skin lesion serving as the portal of entry and a septic thrombus with resulting thromboangitis occluding one or more branches of, or the entire, internal maxillary artery. His reasoning is logical, his conclusions sound for individual cases. Paunz is of the opinion that disease of the antrum is responsible for the majority of cases. Posey shared this opinion. In spite of statements to the contrary, there is no doubt that the antrum of Highmore is present at birth, although it may be quite small, and there is reason to believe that as we often see a well developed mastoid soon after birth, so may we at times find in an infant a well developed antrum quite capable of harboring infection which by contiguity may result in the disease under consideration. On the other hand, necrosis has been found throughout the whole alveolar process with no infection in the antrum (8). Infection in tooth buds is held responsible as the primary factor at the Koerner Clinic, a view also expressed by Kelly, and it is certain that many a case has cleared up quickly after the removal or discharge of a rudimentary tooth. Discharge of teeth would seem to imply disease of the maxilla itself rather than that of the antrum (11). Poncher, Blaney, and Lederer (18, 19) have quite recently meticulously reported a case with convincing histologic studies to show that the disease may originate in the nasal mucosa itself, in this case in the inferior turbinate, and spread by continuity to cause a widespread involvement of the maxilla. Many cases can be explained simply as an infection beginning in some spot, observable or not, devitalized by trauma, and spreading directly from there by continuity. After all, there is really no room for argument as the pathogenesis obviously varies with many factors in each individual case.

Wilensky, as Kelly before him, sees no reason to differentiate between osteomyelitis of the maxilla in the new born and that in the adult, and with some reason too, yet the condition is so much more frequent in infants, and the anatomical conditions so different, that the

distinction will seem warranted to most investigators.

Bacteriological reports as to causative organisms are incomplete and probably none too accurate, due to the great chance of secondary invaders in this location. Staphylococcus has been most frequently found (7, 20), although streptococcus, and pneumococcus have been met with occasionally. It has been interestingly noted that in no case has a positive Wassermann been reported (20).

With relief it may be observed that remaining matters for discussion concerning this topic give little basis for further argument or disagreement. The clinical picture is commonly typical and the following case will serve to refresh memories that may be spent.



Showing physical appearance two years after onset of illness. Note considerable thickening of the soft tissues over the lower portion of the right maxilla.

A baby two weeks old was referred from a neighboring town. For three days there had been a rapidly increasing swelling over the right side of the face. There was no history of trauma, and delivery was without instrumentation or unusual difficulty. Pus had begun to discharge from the right side of the nose a few hours before he came to the hospital. The mother said the child was already better when I first saw him, yet he was obviously acutely ill and temperature was somewhat above 103. (It may be stated here that the infrequency of

high fever reported in this disease (20) is more than likely due to the fact that most cases when seen by the author who described them have already passed beyond the most acute stage of the illness, which progresses rapidly to a brief climax of intensity following which, if the patient lives, resolution is slow). The tissues of the right cheek were swollen, indurated, and of a purplish hue. The eye on the affected side was closed, due to the edema from an orbital cellulitis, and the conjunctiva was inflamed. The eyeball itself was clear. (Eye symptoms occur in virtually all cases (7)). Thick creamy pus was streaming from the right naris. There was no edema of the hard palate. Three small draining fistulae were observed on the outer aspect of the alveolar ridge, one in the canine area, and the other two further back. A probe could enter no cavity. With no treatment save gentle cleansing, within twenty-four hours the temperature had dropped to normal, where it remained, and the child was allowed to return home to remain under the care of the local physician. The little patient has been followed and is making a gradual and uneventful recovery. To date, nearly two years since the onset, there is still considerable induration over the right maxilla in the lower half. A small persistent sinus just posterior to the canine area continues to drain and a probe touches rough bone here. A slight purulent discharge from the right side continues at all times. There have been no complications and the child has had no illness since the acute condition subsided. General condition is excellent.

Complications occurring are those to be expected from the nature of the disease and its location. Mentioned in the literature are parotitis (13), gastro-intestinal disturbances, multiple abscesses, especially in the hands, exophthalmos (7), meningitis, and brain abscess (16). Septicemia of course at times exists, but cavernous sinus thrombosis has never been mentioned, although its frequent occurrence would appear to be reasonable.

Treatment is conservative, simple cleansing measures being often sufficient, and when any surgery is done it should be of the most conservative type, sequestra being removed through as small openings as possible, and incisions whenever indicated limited if possible to the

inside of the mouth. Disfiguring scars are apt to follow external incisions (9). Radical surgery has occasionally been performed, but its use today is disapproved by virtually all observers.

Prognosis is grave since the mortality is about 25%. If the patient survives the acute attack, prognosis so far as life is concerned is excellent, although convalescence is slow. Dentition will naturally be affected to some extent in all cases. Opinions conflict as to the disfigurement resulting from this disease. Here again there is obviously no room for argument and no ground for any dogmatic statement other than that the deformity in each case varies directly with the extent of necrosis and the subsequent loss of structure.

SUMMARY

Disappointment was experienced at finding such an extensive and rather confused literature on the subject at hand. A fairly complete discussion is given as to whether or not "osteomyelitis" is the correct term to be used here. Frequency of this disease is recorded and an effort made to give priority credit where it is due. Pathogenesis is discussed and a typical case is reported, followed by some comment on complications, treatment, and prognosis.

The logical conclusion to draw from this study is that the disease under consideration is a clear cut clinical entity of fairly common occurrence and needing from a practical point of view no further particular elucidation.

There follows a list of references, all of which were used in the preparation of this paper, and each of them contributed something to its completion. Many other references yielded only negative information.

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WHAT DOES YOUR PROFESSION MEAN TO YOU?

By

CARL B. EPPS, M. D., F. A. C. S., SUMTER, S. C.

When a man passes his twenty-fifth milestone in any vocation of life, perhaps he is justified in pausing for a moment to glance backward over his shoulder.

A panorama of burning, youthful ambition, and a long stretch of dreams,—some realized, and some lost,—lie spread before him. Here the bright memory of a joyous reward, and there the dull scar of a bitter disappointment. And then he awakes from his reveries to the urgent work that still beckons him onward. May the lessons of the past be not in vain.

So come with me for a few minutes. Let us see where the profession of medicine has led us in the past, and where we must walk in the future. If at times the discourse becomes personal, it is only because of the necessities of the discussion.

Some of the elemental needs of man are shared with the lower animals. Eating, sleeping, resting, procreation, and a place to live, are also necessities to the dumb creatures. So, while not despising these lesser things, if we wish to rise above the animal elements inherent within us, we must cultivate the better things of the mind and spirit. And no calling offers a wider field for high development in these greater things than does our own worthy profession. No claim is made here that the doctor must pass all of his time in psalm-singing, although some of this will greatly benefit the singer. Goodness of heart is not exhibited by the self-confessed righteousness of the Pharisee who lifts his skirts from contamination, and passes by on the other side, but rather by the humble Samaritan who stoops to bind the wounds of the bleeding wayfarer.

Let us for convenience divide the doctor's career into three loose divisions; first, his preparation; second, his work; and third, his reward.

I have never heard a physician express the opinion that he had spent too much time in preparation. I believe, however, that too long

a period spent in hospital work may cause a man to be less fit to cope with actual experiences when thrown into outside practice. He learns to lean too heavily upon others, and upon the laboratory. I believe that the matter of how much time the student will spend upon preparatory education will to a large degree be determined by the amount of yearning that he has for education, and the amount of money that he can secure to spend upon it. Undoubtedly the cost of medical education is now entirely too high. It is a terrible and unjust burden on the average medical student with whom I have talked. There should be scholarships for worthy medical students, and we doctors should do all in our power to bring this about. If the medical student, who will spend so much of his life in charity work for the public, is not worthy of substantial aid in obtaining his education, then who is? But unless we fight for our rights in this we will get nowhere. If we play the role of the shy, blushing violet, we will be left to wither with the violet, while less worthy, but more aggressive selfish interests exhaust the taxpayer's money. I will have more to say along this line later in my discourse. Tuition at medical colleges, especially at those that enjoy large appropriations from the state, or that have heavy endowments, appear unnecessarily high. An impartial investigation along this line would not be amiss.

Now to come to the actual work of the doctor. If he expects to enter a specialty, I believe that it is to his own advantage, and certainly to the advantage of his patients, that he spend a while in general practice. The various human organs are so closely related, and interact so definitely upon each other, that he cannot possibly be as good a doctor for some certain part of the body, having handled only that part, as he would be if he had handled the entire body in actual experience. Now, I realize that giving expression to such beliefs is flying directly against the present practice of receiving an M. D. degree, spending a year or two in a hospital, and coming out as a full-fledged "specialist" in this, that, or the other thing. But then, this article aspires to tell the truth, letting the chips fall where they may. In this connection may be mentioned the comment of the eminent Italian surgeon, Dr. Andrea

Majocchi, who, after visiting the Chicago stock yards, and also our great surgical clinics, drew an analogy between them. He compared the potentially able men working in stock-yards, who are reduced to the labor stature of cretins by the belt system, causing each man to do his little automatic act, one removing hoofs, one horns, one ears, etc., to our physicians and surgeons who specialize in one disease, or one section of the body. To him efficiency is worth little when it is gained at the cost of many-sided activities that bring familiarity with every ill of humans.

I believe we are becoming too prone to look upon a patient not as a many sided personality, but rather as a pair of eyes, or ears, or an abdomen, or a hip joint, a heart, or a couple of kidneys, or a pair of lungs. We must always remember the controlling brain, the individual personality. We cannot judge correctly without weighing such elements as hysteria, self-pity, family peculiarities, deception, and abnormal sensitiveness to pain. In other words, we get a restricted, partly correct view by too narrow specialization, the so-called "tubular view," looking through a narrow cylinder.

Getting the views of other men is a great aid in broadening our own horizon. Reading articles, hearing discussions at medical meetings, and attending medical and surgical clinics are all valuable aids.

All work and no play makes Jack a dull boy in medicine as well as in anything else. We should each have a hobby and take time for recreation. Some doctors have found much pleasure in music, some in golf, a few in politics, many in hunting and fishing. Some have a farm as a side line, and in many cases the farm gradually weans him away from medicine largely, or entirely. A considerable number have taken up writing as a hobby, some making quite a success at this work. Personally, I have found much entertainment in hunting, fishing, and politics, or, as I prefer to call it, studying government affairs.

A practical knowledge of and interest in government is becoming more and more important to the doctor. According to present trends he will soon be metamorphosed from an independent, highly responsible member of a great, forward marching profession into a de-

pendent, time-serving, uninterested and uninteresting, serial-numbered public drudge. A mere manikin, a time-clock pusher, without ambition, and with no hope of advancement.

And you will no longer have a personal, vital interest in your patient. He will have become a mere piece of flesh that no longer challenges your best effort, but shuffles through your hands like a sock through the hands of a hosiery mill inspector. No longer can you build up a private practice through good work, for you will have your tiresome routine cut out for you from day to day. Your tread mill existence will remove your chief incentive to keep abreast of your profession. Your "profession"! Don't fool yourself, you won't have any; it will become a sorry trade.

If this picture does not appeal to us, then we had best be up and fighting for our rights, and for the welfare of our patients. Never before has the public taken such an interest in medical affairs, and never before has so much been demanded of the physician. Now we cannot as a group assume or demand rights without also assuming and accepting responsibilities. Pressing campaigns are being waged for such things as compulsory health insurance, universal vaccination for various diseases, and guaranteed hospitalization. None of these things can be carried out without the aid of doctors. The public is demanding them; so the only question is whether we shall take command and secure rational procedures, and receive pay for our services or whether we will allow ignorant crusaders and self-seeking politicians to control, and put over on the public, half-baked schemes, while we continue to do the real work free.

In this connection, I feel that our proposal, submitted unsuccessfully at the last State Medical Association meeting, to give County medical associations control over County health departments, is a vital step in the right direction, and should be pushed to a successful conclusion. It has met, and will continue to meet, opposition from certain elements, but I feel that this opposition can be overcome.

Medical care of the poor is going to be paid for either by the public or by the doctors. Either the expenses will come from the state, city, county, or federal government, or from gifts, or the doctors will pay for it by giving their own

time, gasoline, office expenses, and drugs. The public health officers, nurses, and others receive pay for their work, but we have usually gone unpaid. Grocery and clothing stores, coal and wood dealers, and electric light plants are not expected to give their time and goods free to the poor, but we are. It doesn't make sense. It is an intolerable burden that we would not have to bear if we demanded our rights. We do not mind doing a reasonable amount of charity work, but the demands made upon us now are entirely unreasonable.

The present crusade against venereal disease demands our attention. It is estimated upon good authority that 19 million people in the United States have either syphilis or gonorrhoea, many having both. And only one in ten are said to be under the care of licensed physicians. Counter prescribing druggists, of whom we have a large surplus in our own town, and kind hearted, personally experienced friends, care for the other nine-tenths. If free treatment is offered, how many who are fully able to pay will refrain from going to the public clinics? The enormous costs to our taxpayers of indiscriminate free treatment should be brought to the attention of the public. These facts should be presented to our legislators, clubs, civic groups, and to state, county, and city officials.

Various plans have been devised to combat the evils of free public clinics. One that has met with considerable success in Cleveland, Ohio, is the so-called Cleveland Dispensary Admissions Plan. Those who apply for free treatment are carefully classified. If the person is obviously a charity case, he is referred directly to the dispensary. If not, he is referred to the physician of his choice. The doctor does one of four things. He treats the patient for whatever fee agreed upon; or he treats him free; or upon a deferred payment plan; or he sends him to the free dispensary. It is claimed that at least 3,000 patients were saved to the private physicians of Cleveland in one year under this plan.

When we cry out against the oncoming danger of socialized medicine, we are not crying "wolf" when none are near. England has had state medicine since 1911, and a recent report from London says, "It has reduced the practice of

medicine from a profession to a trade, made slaves of the doctors and druggists, and has bred in the people a dangerous reliance upon hurried and inefficient doctoring which has caused a serious decline in the national health average." This report is from John S. Steele, writing in the Chicago Tribune.

Doctors and laymen must take a more sensible business-like view of sickness. Many people can find money to buy automobiles, radios, and refrigerators, all of them often being luxuries, while they claim that they cannot find money for necessary medical attention. They must be taught that, as Dr. Morris Fishbein has said, "People can have operations, and babies, too, on the installment plan."

Now, let us consider the rewards of our profession. At times when we hasten to answer a hurry call at 1 A. M., and find it to be just a common drunk, we feel that all is vanity. Or, when we do our best to save a human life, and then hear bitter criticism, we wonder if it is all worth while. Or we do some work of which we are quite proud, and the ungrateful patient not only fails to remunerate us, but knocks us to his next medical dupe, we feel that perhaps we should be back on the farm gazing into the honest eyes of old Pete, the mule, or old Bossy, the cow.

But the picture has another side. We find grateful patients, also. We attend a poor fellow through a desperate attack of pneumonia, or we cure him by an operation, and he comes back, and expresses his gratitude, and also pays you, and you feel that your life is being well spent. Our rewards may be classed under three heads. First, we have the very deep satisfaction of relieving human suffering and saving human life. No other calling offers such numerous opportunities for this service to our fellow men. Second, our lives are filled with interest. We see new things in pathology, new phases of human psychology, and absorbing studies in human nature from day to day, no matter how long we practice. And, third, if we mix a little business sense with our scientific endeavours, we may reasonably expect a comfortable living.

If we look about us, observe the merchant, the lawyer, the farmer, the mechanic, the soldier, or the sailor, we find that they probably get no more, if as much, from life. We love to speak

of ours as a life of sacrifice. But I would rather look upon it as a life of service. And nothing spent in service to humanity, and therefore to God, is ever sacrificed.

CASE REPORT PELLAGRA

By

ARTHUR E. SHAW, M. D., COLUMBIA, S. C.

In May, 1937, an acute outbreak of pellagra occurred at the S. C. Industrial School for Girls. As physician in charge of this institution I was called to see several of the inmates whose ages ranged from 12 to 17 years. To be exact, there were nine girls affected, all husky, well developed children who had been inmates of the School 3 or 4 months with marked pellagra symptoms, skin eruptions of the glove cuff type on the hands, elbows, face, and neck, with the characteristic coloring, intestinal symptoms of indigestion, flannel redness of the tongue and characteristic odor to the breath. Well it cer-

tainly was a puzzle to know where it originated, as the entire school population, faculty and teachers had identical food from the same kitchen. Upon investigation we found that the nine affected girls were located in a separate building in a restricted zone, so to speak. Then we began to get on the right track. To make a long story short, we found that these girls were employed on the farm, and on investigating our ideas, learned from the late Dr. J. W. Babcock and Dr. J. J. Watson that corn (defective) was the main offender in this part of the world. We finally obtained our clue from one of the girls that they had a habit of taking ears of yellow corn cut last year in an immature state for ensilage purposes. They would take 2 or 3 handfuls of this corn and take it down to the heater, roast it and eat it. This process we stopped immediately. Put the nine girls on a corn free diet and gave them one tablespoonful of brewers yeast four times daily. All the patients were absolutely well by the last week in June. Those who don't believe in the spoiled corn theory may investigate at the school.

PROGRAM FOR FOUNDERS DAY, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA, NOVEMBER 4, 1937 ROPER HOSPITAL

10:00—10:30 A. M. -- "Traumatic Abdominal Surgery"

Dr. James C. McLeod, Florence

10:30—11:00 A. M. ----- "Cardiac Pain"

Dr. J. Heyward Gibbes, Columbia

11:00—11:30 A. M. -- "Some Problems in Management of the Third Stage of Labor"

Dr. J. Decherd Guess, Greenville

11:30—12:00 A. M. -- "Neurosurgical Diagnosis"

Dr. Fredrick E. Kredel, Associate Professor of Surgery, Charleston

12:00—12:30 P. M. -- "Treatment of Lobar Pneumonia"

Dr. William H. Kelly, Associate Professor of Medicine Pathology Laboratory, Charleston

5 P. M. ----- Pathological Conference

8 P. M. ----- Banquet

Address—"Some Literary Physicians." Dr. Irving S. Cutter, Dean and Associate Professor of Medicine, Northwestern University of Chicago.

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OF THE

South Carolina Medical Association

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NOVEMBER, 1937

NEW PLANS COLUMBIA MEDICAL SOCIETY

THE RECORDER

The Columbia Medical Society is now the largest constituent County Medical Society Unit in the State and is growing rapidly in membership. The new plans went into effect

with the October meeting when the far famed pediatrician, author, and teacher, Dr. Isaac Abt of Chicago was the guest speaker. A large number of physicians including officers of the State Medical Association attended this meeting. The plan is to invite a nationally known speaker for each monthly meeting. At the next meeting Dr. Irvin Abell, President of the American Medical Association, a distinguished surgeon of Louisville, will be the guest speaker. A Dutch dinner will be tried out during this coming year at each meeting, with time for social contacts.

One of the greatest innovations is that of the publication by the Society of a monthly Bulletin. The first number has reached our desk and it is highly creditable from every standpoint. A Publication Committee will be responsible for the editorials and for the general management of the Bulletin. One of the unique features is that of the publication each month of the names of the members of the Columbia Medical Association. It is hoped that the circulation may be extended beyond the membership of the Columbia Medical Society as the income grows from advertising. The first number compares favorably with the Bulletins from much larger County Medical Societies. The Journal welcomes this new publication most heartily.

COUNCIL HAS IMPORTANT MEETING

At the request of President Stokes the Council met in Columbia on October 13. For some time the President has had under consideration plans for increasing the interest and membership of the State Medical Association, and these plans he outlined at the called meeting of the Council. In brief the idea is to bring about a more intensive cooperation on the part of each Councilor and each Councilor District with all the officers of the State Medical Association. This will be done by personal visitation on the part of the Councilors and officers of the Association and by direct communication with physicians who are eligible to membership. President Stokes believes that the District Societies by virtue of their larger membership and territory have in them the possibility of greater stimulation of the County

Medical Societies if properly orientated to that end. The Council concurred with the President unanimously and enthusiastically, and these plans are now being carried out. President Stokes further believes that if organized medicine is to accomplish all that it should, every eligible physician must perforce become a member of his County Medical Society.

The President submitted his recommendations for the appointment of committees to carry on the work of the Association for the ensuing year. These were also approved. Plans were discussed by the Council for the meeting at Myrtle Beach in 1938. Other matters were given due consideration by the Council. There are a number of new Councilors on the Board now, and all of them entered upon their duties very earnestly, and good results are expected to follow their efforts.

CONFERENCE OF STATE SECRETARIES AND EDITORS OF STATE MEDICAL JOURNALS

On November 19th and 20th the Secretaries and Editors will have their annual meeting at the Headquarters of the American Medical Association in Chicago. This organization is now conceded to be one of the most powerful influences in American Medicine. The meeting lasts for two days and nights and most of the important phases of organized medicine and medical journalism are discussed and general policies are agreed upon. The place of meeting is ideal and inspiring for each Secretary and Editor. The Board of Trustees of the American Medical Association always meets at the same time and place and this also is an inspiration to the members of the organization. The Secretary Editor of

the South Carolina Medical Association has never missed a meeting, and the organization has been functioning about a quarter of a century. In this connection the Southern Medical Association has instituted a conference of the Secretaries and Presidents of the State Societies within its borders. This second conference will be held in New Orleans, Tuesday, November 30, 6:30 P. M.

THE POST GRADUATE COURSE AT DUKE UNIVERSITY

An invitation has been extended to the members of the South Carolina Medical Association by Duke University to attend the graduate courses there November 11, 12, and 13 on Obstetrics, Gynecology, and Pediatrics. These courses have grown in interest each year and attract a large number of physicians from this and other states. The speakers have been drawn from many of the great Universities of the United States. We urge our members to bear this splendid opportunity for refresher courses.

THE S. C. SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY MEETS IN COLUMBIA

The State Society of Eye, Ear, Nose, and Throat specialists is now one of the largest specialty societies in South Carolina in point of membership. The meeting in Columbia on November 9th promises to surpass any other meeting hitherto held in attendance and interest. The officers and members encourage the attendance of any of the members of the State Medical Association who are at all interested in the program.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

QUERIES AND ANSWERS

The questions today have a bearing on the matter of prevention of puerperal sepsis. They are straws in the wind indicating an increasing interest in this important subject. They have been asked verbally by several different doctors.

To The Editor: Discuss rectal versus vaginal examinations of women in labor. X. Y. Z.

Answer: Both types of examination allow the examining finger to explore the pelvis and its contents. The roominess of the pelvis, the prominence of the ischial spines, the prominence of the sacral promontory can be equally well determined by either method. Similarly the degree of descent of the presenting part can be ascertained. Thus far then the information yielded by the finger in the rectum and the fingers in the vagina are about the same.

The cervix is more easily examined by the intravaginal finger. Its length, thickness, softness, and degree of dilatation are usually more readily recognized, and particularly is this the case if the presenting part is not engaged. Similarly suture lines and fontanelles are more surely felt. However, if the head is fixed so as to offer counterpressure to the intrarectal examining finger, all this information can be recognized after a little practice and experience. It will be only the very rarely encountered greatly thinned out cervix without dilatation that will fool the examiner, and only an occasional case where the rectal examination will not furnish the needed information.

The vaginal examination to be safely made demands that the patient be shaved and scrubbed and the examining hand be incased in a sterile glove. For rectal examination, the technique need not be sterile. The objection that intracervical invagination of the upper vaginal wall is a source of danger, tending to introduce pathogenic organisms into the uterus, is well founded, but the danger is not as great as is that of so introducing such organisms by the finger which has passed first through the lower two-thirds of the vaginal passage.

To sum up, then, it is the opinion of the writer that rectal examinations of women in labor are less troublesome and time consuming to the doctor, are of less danger to the patient, and yield satisfactory information in most instances. However, this method of examination can not wholly replace vaginal examination in certain difficult cases.

Question: Describe a suitable method of preparation of the perineum and vulva for delivery. X. Y. Z.

Answer. First the vulvar hair should be shaved or closely clipped. This lessens soiling from rectal leakage, and makes thorough cleansing easier.

There is no better or more universally applicable cleansing agent than soap and water. In the preparation of a woman for delivery the perineum, the vulva, the inner sides of the thighs, the lower abdominal wall and the intergluteal crease (anal region) should be vigorously scrubbed with soap and water. Emphasis should be placed on scrubbing, for to simply pour soapy water over the parts is not enough. Many like to add a little lysol to the water. Others like to rinse off the soapy water with bichloride or cyanide of mercury solutions. Whether or not this adds anything of value is doubtful. No particular kind of soap is preferable, and a new or clean cake of octagon or similar soap is perfectly satisfactory.

After the scrubbing of the parts, they may be painted with a solution of one of the dyes like mercurochrome, or with metaphen or weak tincture of iodine, but the writer doubts if this makes asepsis any more nearly approximated.

The parts should be rewashed before any vaginal examination and before any instrumental interference.

Question: Is the use of a douche in the puerperium good practice? X. Y. Z.

Answer: No. The practice of ordering douches in the puerperium should be as dead as the dodo, and yet hospital services occasional-

ly receive a patient with sepsis who gives a history of having had a douche within a few days of delivery. Although it is hard to believe, occasionally it is stated that the doctor ordered it. More frequently it was given without the doctor's knowledge. Since sepsis is probably an infrequent result of such douches, they must be used fairly frequently.

It is safer to prevent douching, tub baths, intercourse until after examination in the fifth or sixth week of the puerperium, when the condition of the cervix is determined.

In case where such examination is not contemplated, neither of these should be allowed until all red lochia has ceased, and the patient has been up and around the house without its return. Red lochia indicates incomplete healing

somewhere in the genital tract, usually at the placental site. It may be due to a retained piece of placenta, and if so the cervical canal remains open until it is removed or discharged. An aseptic douche is impossible in a vagina which we know is teeming with pathogenic as well as non-pathogenic bacteria. The douche water is likely to carry these organisms up into the uterus through an open cervix and even out through the tubes into the pelvic peritoneal cavity. External cleanliness and postural drainage are not only safe, but are measures which remove foul discharges and prevent odor more efficiently than a daily douche. Hence there is no excuse for douching of the vagina in the early weeks of the puerperium.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

ABSTRACT No. 343 (38715)

April 30, 1937

Case of Dr. Bowers

Student Norwood (presenting case):

A 29 year-old white woman, housewife, admitted 4-2-37, disc. 4-16-37.

History: Gradually increasing pain with menstrual periods over a period of 6 months, with a feeling of pressure in the lower abdomen. Increased frequency of urination, with some pain on urination. Married nine years, no pregnancies. Onset of menses at 13 years of age, interval 28 days, duration 5 days. No periods of amenorrhoea, and no other abnormality of menstrual flow. Prior to 6 months ago, there had been no dysmenorrhea. Asthma and hay fever in spring and summer since 1933. Usual diseases of childhood, no other illnesses.

Exam.: Tall, well-nourished woman, temp. 97, pulse 70, resp. 22, BP 138/86. Eyes, ears, nose, and throat normal. Posterior cervical lymph glands palpable. Chest: Expansion fair and equal. Rales over base of left lung disappeared after a few respirations. Resonance and tactile fremitus normal. Heart: Apical

impulse in 5th interspace $2\frac{1}{2}$ inches from midline. Rhythm regular. A2 greater than P2. No murmurs. Abdomen: "Flat, soft. Uterus enlarged and there is tenderness to palpation above symphysis and over lower left quadrant." Rectal examination negative. Pelvic exam. (Dr. Bowers): "Through a speculum the appearance of cervix and vagina was normal. There is a mass the size of a small grapefruit, mostly on the left. It is fixed and seems to be the uterus. Nothing in right pelvis." Remainder of exam. negative.

Lab.: Voided specimen of urine before operation completely normal, cath. spec. after operation showed only 2 plus acetone and occ. blood cell. PSP test (4-2-37) 32% 1st hour, 25% second hour. Blood (4-2-37) Hb 75% (D); WBC 11,725; polys 72%, lymphs 24%, eosinos 4%.

Course: Temp. rose to 100 the day of operation, but returned to normal on the third day and remained normal. Pulse rate never above normal. Resp. 18-24. Operated 4-3-37. Post-operative course uneventful, sutures removed on 4-11-37. Discharged 4-16-37, thirteenth post-operative day.

Dr. McCrady (conducting): Mr. Corcoran, this patient started suffering from dysmenorrhoea recently. Would you call that a primary or a secondary dysmenorrhoea?

Student Corcoran: Secondary.

Dr. McCrady: In addition to dysmenorrhoea, she has a mass in the pelvis. What does this make you think of?

Student Corcoran: Fibromyoma is the first thing to come to mind in one of this age who has never borne children. That could give dysmenorrhoea. The tumor would probably have to be intramural or subserous, as there was no increase in menstrual bleeding and no bleeding between periods. The consistency of the mass is not stated—if we were told whether the mass was nodular and hard, or cystic, that would probably help us come to some conclusion.

But it seems to me that endometriosis is the most likely diagnosis in a woman of this age who has had dysmenorrhoea for only six months. There is also a tendency to sterility in endometriosis as well as in fibroid tumor of the uterus. The fixation of the mass goes better with endometriosis than with fibromyoma. The blood count is slightly elevated, and that is consistent with the absorption of a small amount of blood as would occur in endometriosis.

Ovarian cyst is a possibility, but they are usually associated with abnormal bleeding as well as with dysmenorrhoea. I believe that the examination would have been more definite in a case of ovarian cyst.

Tuberculosis of the tube is a possibility, but that is usually secondary to tuberculosis of the pelvic peritoneum, and there is no evidence that this is present. I think tuberculosis quite unlikely.

I don't think that the data recorded permit us to make a definite diagnosis, but I believe endometriosis the most likely diagnosis from what we have.

Dr. McCrady: Generally speaking, the blood count is higher than this in absorbing hemorrhage. And it is pretty hard to say that there was just enough hemorrhage in this case to give just that amount of leukocytosis. Mr. Blair, what do you think?

Student Blair: In the absence of pelvic infection, and with the history of sterility, endometriosis seems to me the most likely diag-

nosis on the basis of this history and examination.

Dr. McCrady: Is sterility necessarily the case in endometriosis?

Student Blair: No, not necessarily, but that is usually the case. Endometriosis seems to me to be most likely, but the condition could be ovarian cyst or tumor.

Dr. McCrady: What else might you expect in a case of endometriosis that is not recorded here?

Student Blair: There might have been small endometrial cysts in the vagina, which would appear blue from contained hemorrhage after the menstrual period. Too, you might expect the rectal wall or the cul-de-sac to be infiltrated.

Dr. McCrady: Well, we'll tell you what was found at operation, and then let you continue the discussion. There was a cyst of the left ovary about the size of a small orange, it contained dark fluid, and its lining was stained with blood. The left tube was rather loosely attached to the ovary, and there were no other abnormalities noted in the pelvis: the other tube and ovary appeared normal. There was a fibromyoma about the size of a pea on the anterior surface of the uterus, but the uterus was small and did not appear otherwise abnormal.

Now what do you make of it, Mr. Corcoran?

Student Corcoran: The "chocolate cysts" of endometriosis would contain dark fluid, and the finding of such a cyst would seem to confirm the diagnosis of endometriosis. It could also be a lutein cyst with hemorrhage, but a lutein cyst would probably not be this large, and it wouldn't be apt to produce severe dysmenorrhoea.

Dr. McCrady: Mr. Blair, how about the possibility of pelvic inflammation?

Student Blair: Well, there is no history of discharge, or of attacks of lower abdominal pain, and there was no irregularity of the menstrual cycle as I would expect with pelvic inflammation. The blood count is compatible with infection, but the history does not seem to point that way.

Dr. McCrady: You all seem to be fairly sure of your diagnosis. Suppose this was a dermoid cyst; what would you expect then?

Student Corcoran: Dermoid cysts are rather commonly bilateral. They may have hemorrhage

into them, and could then appear as this one is described, and they frequently cause dysmenorrhoea. That is a definite possibility in the case.

Dr. McCrady: Is there any discussion from the staff?

Dr. Cain: I want to pay my respects to the history and examination. The description of the dysmenorrhoea is inadequate—it should have stated at just what time the pain began. In endometriosis the pain usually begins at about the middle or towards the end of the period of bleeding, since it is due to tension caused by hemorrhage into the endometrial cysts. And the examination should note whether the mass felt hard, or nodular or fluctuant.

It seems to me that Mr. Blair got onto the right track when he ruled out pelvic inflammation. The record says that there were no previous illnesses, and pelvic infection would almost certainly have caused lower abdominal pain, of leukorrhoea or abnormal bleeding.

Now we have it recorded that the pelvic mass was fixed. Having ruled out the possibility of fixation of the pelvis by the adhesions of inflammation, we have little left but new-growths which tend to infiltrate and fix the tissues, or endometriosis, which also causes fixation. To me the most likely thing in one of the age, giving both tumefaction and fixation, is endometriosis. My objection to the diagnosis of fibromyoma is the fixation; that should not occur in fibromyoma without inflammation of the adnexa. Likewise for a dermoid cyst to be fixed, there must have been inflammation.

Papilliferous cystadenoma is also a likely diagnosis, since it could give tumefaction and fixation. It might be unilateral, but implants would have been present in the pelvis to give fixation, and the operative record shows that they were absent.

Granting that the history is correct, I believe that endometriosis is the most likely diagnosis.

Dr. Prioleau: Dr. Cain made the point that a fibromyoma of this size would almost necessarily be freely moveable; an intraligamentous fibromyoma might be fixed, might it not?

Dr. Cain: In that case, it would probably be fixed in one direction. But then the mass would hardly have been mistaken for the uterus.

Dr. McCrady: The evidence given for this being endometriosis sounds pretty good, but

I don't believe I could have made that diagnosis on what we have here. The mass palpated was thought to be the uterus. There was no evidence of the characteristic bluish cysts of the vagina upon which the clinical diagnosis must be based in most instances. There was no infiltration of the cul-de-sac, and even at operation, the structures appeared to be free.

Dr. Lynch: This case differs from the usual conference case, in that we usually choose a case that died, and upon which an autopsy was performed. But when we use a case that lives occasionally it emphasizes the important fact, that a knowledge of pathology and of pathological principles should be applied to the living in the making of every diagnosis.

This was a case of endometriosis, as many of you have supposed. The ovary was about $3\frac{1}{2}$ inches long, and was almost entirely occupied by a cyst containing dark, grumous material. (Using micro-projector) You see here a microscopic section prepared from the wall of that cyst. As you can see, the cyst has a lining of granular epithelium quite identical with that normally found in the endometrium. Here and there small bits of endometrial stroma are to be seen too, and that lets one be sure it is an endometrial cyst. The cavity of the large cyst probably contained the same sort of material that you can see here in the smaller cysts in the wall of the large one: a mixture of blood and dead cells. The brownish cast to the cells in the wall of the cyst is due to pigmentation from previous hemorrhages. As you know, these bits of endometrial tissue, although abnormally placed, are still subject to the impulse of the ovarian hormone, so that hemorrhage and desquamation occur with each menstrual period, just as in the uterus. This causes tension in the small cysts, and the tension is probably the cause of the pain, which characteristically is greater towards the end of the menstrual period, when the accumulation of material is greatest. These bits of endometrium will also undergo the decidual hyperplasia of pregnancy when the fertilized ovum has lodged in the uterus and the decidua there is found.

It is the mixture of old blood pigment from previous hemorrhages with the fresh blood of more recent hemorrhage which gives to these cysts the fairly characteristic gross appearance

known as "chocolate cyst." But that sort of gross appearance can occur in other conditions, so that microscopic examination, demonstrating actual endometrial tissue, is necessary for the confirmation of the diagnosis.

There were also endometrial implants in the wall of the tube on the same side. That brings up the question of how these bits of endometrium get there. According to Sampson's theory, they get into the adnexa by a sort of reflux menstruation, the cells shed from the endometrium passing up the tube and lodging and growing somewhat about the fimbriated end of the tube. This case is not incompatible with that theory, but there are cases where the endometrial tissue is found in the inguinal region or elsewhere, so that reflux can hardly explain every case. Usually the process is not limited at it seems to have been here; usually there is more extensive involvement of the pelvic structures.

I am rather inclined to fall in with the opinion of Dr. McCrady that endometriosis could not be definitely diagnosed before operation, but the diagnosis could have been made from the gross appearance at operation, and Dr. Bowers made the diagnosis of "chocolate cyst" then.

I would like to hear someone discuss the pos-

sible outcome in this case.

Dr. McCrady: In this particular case, it seems that all of the disease may have been removed. But suppose, Mr. Corcoran, that some endometrial implants had been left; what would you expect to happen, and what would you do about it?

Student Corcoran: In this particular case, the patient is 29 years old and has never had children. Since she had no evidence of further disease, I would let her alone and see how she gets along. If the symptoms recurred, I would recommend X-ray therapy over the ovaries to remove the ovarian hormone effect and thereby prevent further hemorrhage and pain.

Dr. McCrady: I have a couple of cases of endometriosis that have become pregnant after operation for pelvic endometriosis, and I believe your choice of procedure would be the correct one. So far as we know, there is little danger of cancer developing in these implants, so that need not be considered.

Student Blair: Dr. McCrady thinks that the diagnosis of endometriosis was not completely justified. Possibly it wasn't from the facts of the case, but we felt quite sure that a case of fibroids would not have been brought up at conference! (laughter)

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"HUMAN BITES"

The treatment of human bites always presents a problem. The wound not infrequently looks innocent and as if it would heal with ordinary surgical measures. However, more often than not a miserable type of infection sets in, involving neighboring structures and generally extending up the lymphatics. The hand, the site most commonly affected, frequently suffers permanent damage; life itself may be lost. Apparently the human mouth is the dirtiest of all mouths. The organisms involved are usually described as anaerobic streptococci, and spirilla and fusiform bacilli of the Vincent group. An immediate cauterization or debridement would seem advisable; however, these cases are not

always seen just after the injury; also such a procedure would often result in serious damage to the hand.

In view of the above Dr. T. M. Lowry investigated the treatment of these cases at the Beekman Street Hospital, New York City, and found that the methods of treatment were most diverse and the results generally unsatisfactory. (*Annals Surg.* 104: 1103 Dec. '26). He worked out the following method of treatment which has proven satisfactory. All wounds are swabbed out with fuming nitric acid and immediately flushed with cold water. Wet dressings are applied. No wound is sutured. Nitric acid is applied even when tendons are exposed and joints opened. No tetanus antitoxin is given.

No anesthesia is used. The same treatment is applied even in cases of several days standing.

In the treatment of 122 cases in about 3 years, the author has sufficient data on 55 cases to determine the end results. In 97% of these cases the results are recorded as good.

(Editor's Note: There is no question but that these cases must be dealt with drastically if we are to prevent serious consequences.

Puncture wounds must be converted into open wounds. Thorough cleansing must be done. The application of nitric acid seems radical, but apparently is justified, as judged by the author's results; especially so as he reports that it does not permanently damage tendons or joints. A wet dressing provides more adequate drainage. It would seem better to hospitalize the patient where practicable).

ORTHOPEDIC SURGERY

AUSTIN T. MOORE, M. D., COLUMBIA, S. C.

THE USE OF SKELETAL TRACTION IN THE TREATMENT OF FRACTURES

In the September 11, 1937, issue of the A. M. A. Journal, Dr. E. L. Eliason, of Philadelphia, reports end-results in the treatment of seventy-four consecutive cases of fracture of the shaft of the femur.

It was my pleasure and privilege for two years to be actively associated with Dr. Eliason's service in the University of Pennsylvania Hospital. He is unequivocally recognized as one of the outstanding fracture surgeons of America.

In this survey of cases it was found that almost every accepted form of treatment of femoral shaft fracture had been used. The chiefs had been on the service and a number of assistant surgeons. The results are a pretty good indication of what might be expected in a cross-sectional study of cases in any given community.

Of all the methods tried, his conclusions are that skin traction is least effective; open reduction is dangerous and rarely necessary; and that skeletal traction is the method of choice.

This study was particularly interesting to me. For the past number of years we have used skeletal traction almost exclusively in my cases of femoral shaft fracture. It has been eminently satisfactory, and open reduction has been found necessary in only very rare instances.

We have devised a very simple method of traction and suspension in a Thomas splint, using stainless steel pins for transfixing the

bone, and rubber bands and scales for traction. Perfect anatomical reposition of fragments is not necessary for a satisfactory functional and cosmetic result. If alignment is good and there is no appreciable shortening, a favorable result can be anticipated almost regardless of position of fragments.

Why does there seem to be such a fear in the minds of some men regarding skeletal traction? I think there are certain mechanical and physiological reasons which might explain the unfortunate outcome reported in a number of cases. Until recent years a safe, non-corrosive metal was not available, and many cases became infected before stainless steel was introduced. Ice tongs, or their modification, were customarily used, with results that frequently were disastrous. Continuous pressure on the bone produced necrosis, infection, and osteomyelitis; or if pressure was not sufficient, the points tore out and engaged only the soft tissue. The poor patient heroically tried to stand his pain; but as matters grew worse, his courage was finally broken down and his complaints drew attention to the wounds where the points were inserted, and usually suppuration was found. For some time the Jointed Steinman pin was in vogue. These frequently broke in two after traction was applied. Position of fragments was lost, the work had to be repeated, and often infection was the consequence. The uninitiated frequently applied skeletal traction in the presence of edema and poor circulation, and the proper precautions against infection were not attended to. Patients were agonized and surgeons scandalized.

Following the introduction of Kirschner wire, complications became less, but wire requires special instruments for its insertion and special tauteners to hold it in place. My personal preference is for stainless steel pins of as small gauge as can be used in each particular problem. Commercially sold pins are expensive, but the material can be bought in bulk in a rough state and each pin can be cut and polished without difficulty. Pins are easily made and simply inserted. A small chuck handle can be purchased at any dime store and the pin is put in after injecting a few cc's of novocaine on either side of the bone. It is much quicker and easier done than applying a Buck's extension. A few precautionary measures are necessary: the material should be non-corrosive (incubation in Ringers Solution at 165 degrees to 185 degrees for 24 to 48 hours will prove this); the part should be properly prepared and the skin painted with an antiseptic; the pin should be thoroughly sterilized and it should not be inserted in an edematous or infected area. The pin should not be inserted through hard cortical bone; e. g., the crest of the tibia. Sequestration is likely to result. Place the pin through the end of the bone, near the joint line. This expanded cancellous portion lends itself better mechanically and physiologically to traction. If these factors are appreciated and if the pin is withdrawn at the first evidence of infection, there is no danger in using this method.

Skeletal traction insures the maximum con-

trol over fragments, and its use can be applied to almost every bone in the body. Two pins may be used, one above and one below the site of the fracture. When these two pins are incorporated in a plaster cast, skeletal traction is converted in skeletal fixation, but that is another story, and certain precautions are necessary, unless delayed union or even non-union results. The maximum of traction should be applied early and gradually lessened as muscle spasm diminishes. It is dangerous to move the bones frequently to test whether or not union is solid. They should be left alone. A wiggle a week is sufficient to cause delayed or even non-union. The sooner the fragments are perfectly replaced and perfectly immobilized, the better chance is there for a perfect result.

Skeletal traction works especially well for fractures of the phalanges and for the metacarpals and metatarsals. The fragments are under accurate control and the patient is much more comfortable than when adhesive or basket weave cots are used for traction.

An occasional misfortune should not militate too strongly against skeletal traction. This is likely to happen following any treatment. The advantages of the method outweigh the disadvantages; however, caution should be exercised in its use. The method should not be used indiscriminately and should only be undertaken by physicians who are especially interested and who have special knowledge of the fundamentals of bone surgery.

WOMAN'S AUXILIARY

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District No. 5, Mrs. W. R. Blackmon	Rock Hill, S. C.
District No. 6, Mrs. D. O. Winter	Sumter, S. C.

MID YEAR MEETING EXECUTIVE COMMITTEE

The South Carolina Medical Auxiliary held its midyear Executive Committee meeting in the drawing room of Nandina Place, Spartanburg, S. C. The State President, Mrs. Jesse O. Willson, of Spartanburg, presided.

After the meeting was called to order, Mrs. W. P. Timmerman, of Batesburg, led in prayer. Mrs. John Fleming gave the welcome words. Reports were given and important business transacted. The President, Mrs. Willson, read a fine report and was given a rising vote of thanks. The Chair recognized Mrs. T. R. W. Wilson, Recording Secretary of the Woman's Auxiliary to the American Medical Association, who is also the Chairman of the Jane Todd Crawford Research Committee to the Southern Medical Auxiliary, and Mrs. C. P. Corn, Treasurer of the Woman's Auxiliary to the Southern Medical Association. The following Chairmen gave fine reports:

Student Loan Fund—Mrs. L. O. Mauldin and Mrs. C. P. Corn.

Jane Todd Crawford—Mrs. J. L. Bolt.

Public Relations report of Mrs. C. E. Owens was read by the Secretary.

Hygeia report of Mrs. Kendall read by the Secretary.

Publicity—Mrs. E. C. Ridgell.

Councillors reporting were:

Mrs. W. P. Timmerman—Second District

Mrs. W. L. Pressly—Third District

Mrs. Harry Heintish—Fourth District

Mrs. C. P. Corn and Mrs. T. R. W. Wilson, of Greenville, are the delegates to the Southern Medical Auxiliary Convention to be held in New Orleans, November 30—December 3. Mrs. Corn gave an interesting account of the National Convention in Atlantic City in June.

The following Nominating Committee was elected: Mrs. T. R. W. Wilson, Mrs. Wm. H. Lyday, both of Greenville, and Mrs. Harry Heintish of Spartanburg. The Board decided to place a bed for indigent in the Columbia Hospital in memory of Jane Todd Crawford. The President, Mrs. Jesse O. Willson, is offering a trophy this year to the Auxiliary having the highest average attendance for the year. The Strait trophy, a perpetual one, is to be awarded to the Unit Historian sending in the finest report on Auxiliary activities. The Wilson trophy, also the largest amount of publicity. Both trophies must be won by the same unit three years before becoming the property of said unit. The outgoing President is to be presented with a pin each year.

At the close of the business session the visitors were invited to the dining room, where they were guests of the Spartanburg Auxiliary at a most delightful five course luncheon.

The following were present: Mrs. Jesse O. Willson, President; Mrs. C. C. Ariail, President Elect; Mrs. P. M. Temples, First Vice President; Mrs. W. B. Furman, Second Vice President; Mrs. John Fleming, Corresponding Secretary; Mrs. T. R. W. Wilson, Recording Secretary; Mrs. Dennis Hill, Treasurer; Mrs. W. C. Abel, Parliamentarian; Mrs. E. S. Ridgell, Publicity Secretary; Mrs. C. P. Corn, and Mrs. L. O. Mauldin, Student Loan Fund;

Mrs. J. L. Bolt, Jane T. Chawford Memorial; Mrs. W. P. Timmerman, Mrs. W. L. Pressly, and Mrs. Harry Heintish, Councilors; Mrs. L. J. Blake, Mrs. J. C. Hayward, Mrs. Avery Phifer, Mrs. W. Cone, Mrs. P. A. Smith, Mrs. D. C. Alford, Mrs. O. C. Bennett, Mrs. J. J. Lindsay, and Mrs. W. H. Lyday.

Mrs. E. C. Ridgell, Publicity Secretary

RIDGE MEDICAL AUXILIARY

The Ridge Medical Auxiliary met October 19 with Mrs. A. L. Ballenger and Dr. Louise Ballenger. The President, Mrs. W. P. Timmerman, presided. The Lord's Prayer was repeated in unison. An interesting business session was held. The President stated the objectives of the Auxiliaries and told of the Mid Year Executive Board meeting held in Spartanburg. The trophies were discussed, and our Auxiliary will strive to attain the awards. Mrs. E. C. Ridgell talked on the Hygeia Magazine. Mrs. Ballenger read a paper on John Bright prepared by Mrs. Asbell. Mrs. E. C. Ridgell read a paper on syphilis. The hostesses served a delicious salad course with hot coffee and Hallman candy and favors.

Mrs. E. C. Ridgell, Publicity Chairman

THE PICKENS COUNTY MEDICAL AUXILIARY

Mrs. J. H. Cutchins was hostess Thursday, October 14, when she entertained the Pickens County Medical Auxiliary. Mrs. J. L. Bolt, President, presided. Eleven members answered to roll call.

Mrs. Cutchins led the devotional reading from Psalm 16, followed by the Lord's Prayer.

A report was made of the Mid Year Executive Board meeting of the State Auxiliary, which met in Spartanburg, by Mrs. W. C. Furman. A motion was passed to enter the contests this year, Publicity and Attendance, trophies being awarded by Mrs. T. R. W. Wilson and Mrs. Frank Strait. Mrs. P. E. Sword, of Liberty, was made County Program Chairman. Reciting the Club Creed, the meeting adjourned and Mrs. R. P. Jeanes auctioned off the "Thrift Basket." Bidding was active and a nice sum was realized. Mrs. Jeanes had charge of the program. Mrs. W. B. Furman read an article on "Aesculapius." Mrs. C. N. Brackett read a piece, "As the Patient Sees It," and Mrs. L. R. Poole and Mrs. J. W. Kitchen gave amusing experiences of hospital life. Mrs. Jeanes concluded the program reading articles on "The Menace of Marihuana" and "Control of Canabis." Mrs. Cutchins served her guests with a delicious luncheon.

Mrs. W. B. Furman, Publicity Chairman

OCONEE COUNTY MEDICAL AUXILIARY

The Oconee County Medical Auxiliary held its quarterly meeting on Tuesday, October 5, at the home of Mrs. J. E. Orr, at Seneca, S. C.

The home was made doubly charming by the addition of many beautiful fall flowers. An unusually good number were in attendance.

The President, Mrs. V. W. Rhinehart, was in the chair and dispensed with the business in her usual efficient manner. Late in the afternoon the hostess invited the guests into the dining room, where she served an elaborate chicken salad course with coffee. Mrs. J. T. Davis, of Walhalla, will be hostess to the next meeting.

ANNOUNCEMENTS

POST GRADUATE SYMPOSIUM ON GYNECOLOGY, OBSTETRICS, AND GY- NECOLOGY TO BE HELD AT DUKE UNIVERSITY, DURHAM, N. C.,

NOV. 11, 12, 13, 1937

Duke University Medical School and Duke Hospital announce a Post Graduate Symposium on Gynecology, Obstetrics, and Pediatrics, to be given November 11, 12, and 13, 1937. All physicians in North Carolina and the surrounding states are cordially invited to attend. The following speakers have consented to participate in the Symposium: Dr. C. A. Aldrich, Associate Professor of Pediatrics, Northwestern University Medical School; Dr. Horton Casparis, Professor of Pediatrics, Vanderbilt Medical School; Dr. Willard Richardson Cooke, Professor of Obstetrics and Gynecology, University of Texas Medical School; Dr. Julius Hess, Professor of Pediatrics, University of Illinois Medical School; Dr. Howard Francis Kane, Professor of Obstetrics and Gynecology, George Washington University Medical School;

Dr. Foster Standish Kellog, Harvard Medical School; Dr. George W. Kosmak, Editor, American Journal of Obstetrics and Gynecology; Dr. Esther L. Richards, Associate Professor of Psychiatry, Johns Hopkins Medical School; and Dr. Charles Hendee Smith, Professor of Pediatrics, New York University Medical School. Acceptances of several others are pending.

GEORGIA PEDIATRIC SOCIETY MEETING

The annual scientific meeting of the Georgia Pediatric Society will be held in Atlanta on Thursday, December 9. Among the guest speakers will be Dr. Ralph S. Muckenfuss, Director Department of Health, Bureau of Laboratories, New York City; Dr. Priscilla White, attending Physician, Deaconess Hospital, Boston, Massachusetts; and Dr. Jos. Brenneman, Professor of Pediatrics, University of Chicago and Chief of Staff, Children's Memorial Hospital, Chicago, Illinois.

SOCIETY REPORTS

THE SEMI-ANNUAL MEETING

of the

FIRST DISTRICT MEDICAL ASSOCIATION WILL BE HELD AT WALTERBORO, S. C.

Thursday, November 18, 1937

5:00 P. M.

Dear Doctor:

An excellent program has been arranged for the November meeting, but its greatest value will come only if every member is prepared to discuss the papers. We know that you have valuable opinions, based on your personal experience. Please look over the program now, and be prepared to help in making this a really worth-while meeting.

PROGRAM

MEDICINE

Symposium: Gastro-Intestinal Diseases

1. Peptic Ulcer-----Dr. W. M. Bennett
2. Peptic Ulcer (X-ray Diagnosis)-----
Dr. G. C. Brown
3. Visceroptosis -----Dr. J. N. Walsh
4. Recent Progress in Diagnosis and Treatment of Gastro-Intestinal Disorders--
Dr. W. H. Kelly

SURGERY

5. Head Injuries -----Dr. F. Kredel

CASE REPORTS

6. Congenital Absence of Vagina-----
Dr. L. S. Felder

DINNER

WHO'S WHO ON OUR PROGRAM

Dr. W. M. Bennett, physician and surgeon, Ruffin, S. C.; Dr. G. C. Brown, physician and surgeon, Walterboro, S. C.; Dr. J. N. Walsh, physician and surgeon, Moncks Corner, S. C.; Dr. L. S. Felder, physician and surgeon, Orangeburg, S. C.; Dr. W. H. Kelly, formerly Section Medicine, Duke University, now Associate Professor Medicine, Medical College State of S. C.; Dr. Fred Kredel, formerly Division of Surgery, University of Chicago Clinics, now Associate Professor Surgery, Medical College, State of S. C.

DUES: No annual dues. A voluntary contribution of \$1.00 is customary to defray cost of dinner.

MEMBERSHIP: All physicians and surgeons of the First District. Guest physicians and surgeons are cordially invited to attend and take part in discussions.

John van de Erve, Jr.

Secretary

EDISTO MEDICAL SOCIETY

During the past few months the Edisto Medical Society has had some very interesting programs. Among the speakers that we have had were Drs. A. F. Burnside and George H. Bunch, of Columbia, reading a paper on the mortality of Appendicitis. At another meeting Dr. Theo Dubose, of Columbia, read a paper on Obstetrics. and Dr. W. H. Durham, a dentist of Columbia, read a paper on Oral Infections. All of these papers were very timely and were thoroughly discussed and enjoyed by the Society.

At the September meeting Drs. H. J. and T. M. Stuckey arranged a delightful fish supper at the Bamberg American Legion Hut. At this meeting no particular scientific program was planned, but after supper the society assembled in the hut, where numerous cases covering many subjects were reported.

H. M. Eargle, Secretary
Edisto Medical Society

ANDERSON COUNTY MEDICAL SOCIETY

The Anderson County Medical Society met at the John C. Calhoun Hotel at 12 A. M., Wednesday, October 13. Dr. Herbert Blake, Secretary of the Anderson Society, extended an invitation to the doctors of the adjoining counties to attend the meeting.

Dr. E. O. Hentz, the President, presided. Dr. J. D. Guess of Greenville, was the invited guest speaker for the occasion. His subject was "Some Problems in the Management of Labor." He spoke as a representative of the Maternal Welfare Committee of the South Carolina Medical Association.

After the business and scientific session the Society adjourned for luncheon, which was served at the hotel.

SENECA HOST TO FOURTH DISTRICT MEDICAL SOCIETY

MANY ATTEND FROM COUNTIES IN PIEDMONT
Excellent Programs by Doctors of Prominence

With the Oconee County Medical Society as host, the Fourth District Medical Society gathered in Seneca Tuesday, October 26, in what was declared a particularly successful and pleasant meeting. Fifty doctors from the counties of Greenville, Anderson, Spartanburg, Pickens, Cherokee, Union and Oconee—the area comprised by the Fourth District—were in attendance. Local doctors served as the entertaining committee.

At three o'clock, the visitors were received at the headquarters building of the South Carolina Medical Association, and were shown the enlarged facilities and library maintained here under the direction of Dr. E. A. Hines, secretary of the state organization. Refreshments were served by the women's auxiliary, the following members being present: Mrs. H. B. Brennecke, Mrs. J. T. Davis and Mrs. Joe A. Johnson of Walhalla; and Mrs. S. H. Ross, Jr. and Mrs. James E. Orr, of Seneca. This occasion, it was stated, was the official opening of the association's doubled facilities.

In the Seneca school auditorium at 3:30 was held the professional meeting, where scientific papers were given by a number of prominent

out of town medical men. Dr. Lee Milford, of Clemson College, vice-president of the society, presided. The program was as follows:

"The Toxemias of Pregnancy,"

Dr. John M. Fleming, Spartanburg, S. C.

Discussion:

Dr. Jack Parker, Greenville, S. C.

"Congential Urological Difficulties in Children,"

Dr. Keitt H. Smith, Greenville, S. C.

Discussion:

Dr. Henry Harper, Anderson, S. C.

"Management of Acute Osteomyelitis,"

Dr. J. R. Young, Anderson, S. C.

Discussion:

Dr. J. Warren White, Greenville, S. C.

Dr. C. O. Bates, Greenville, S. C.

"The Management of Congestive Heart Failure,"

Dr. John F. Rainey, Greenville, S. C.

Discussion:

Dr. Hugh Smith, Greenville, S. C.

Dr. W. L. Pressly, Due West, S. C.

SPECIAL ORDER OF THE DAY

Address: Dr. Edgar Garrison Ballenger, Atlanta, Ga.

At 7:30 a delightful banquet was held at the Oconee Inn. Representing Mayor Lowery, Dr. Hines welcomed the society to Seneca. A welcome talk was also made by Dr. Joe Johnson, of Walhalla, vice-president of the Oconee Co. Medical Society. Heard also were Dr. L. M. Stokes, of Walterboro, president of the South Carolina Medical Association; Dr. James R. Desportes, of Fort Mill, president-elect of the South Carolina Medical Association; and Dr. E. G. Ballenger, well known physician of Atlanta.

At a business session, Dr. J. W. Bell, of Walhalla, was chosen president of the Fourth District Society for the coming year, and Dr. John Fleming, of Spartanburg, vice-president. Dr. George R. Wilkinson, of Greenville, will continue as secretary-treasurer, his term running for three years.

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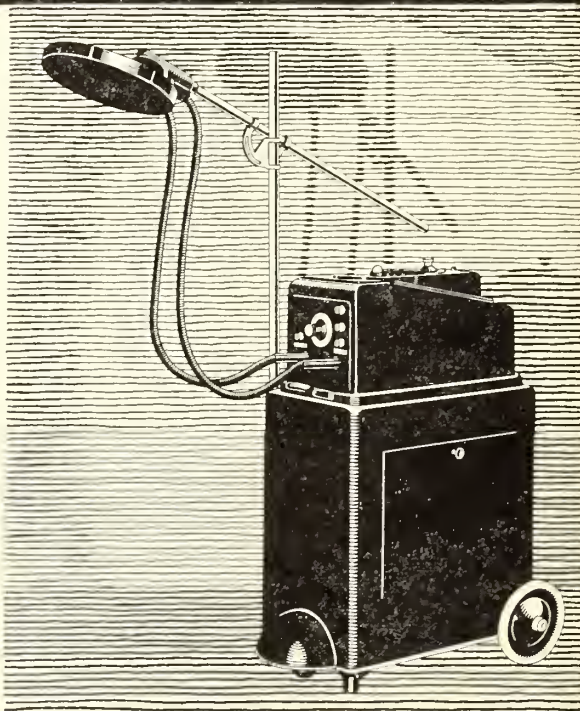
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VOLUME XXXIII

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THE RECOGNITION, DIFFERENTIATION AND MANAGEMENT OF THE COMMONER CARDIAC CRISES

By

W. R. MEAD, M. D., FLORENCE, S. C.

It is the purpose of this paper to present the general features of cardiac emergencies commonly encountered by the practicing physician, appending to each type a rational but unfortunately not infallible program of management to cover the crisis. A detailed discussion of etiological factors and pathological changes is purposely omitted. Three general classes of cardiac crises will be considered.

1. Those associated with the congestive type of heart disease.

2. Those associated with the non-congestive type of heart disease.

3. Those arising during the course of medical or surgical illness when the heart is only secondarily involved.

Heart failure of the congestive type is always accompanied by venous engorgement with circulatory stagnation and resultant tissue changes. Heart failure of the non-congestive type is due to acute impairment of the heart as a whole which results in a totally inadequate output of blood. With respect to the cardiac crises occurring in the course of medical and surgical illness, it must be admitted that these are chiefly circulatory failures and not cardiac failures, a point which will be emphasized later.

Cardiac crises occurring during the course of the congestive type of heart disease are occasioned by the inability of the heart to maintain a passably efficient circulation in the face of some unusual demand. Such factors as an abnormally heavy meal, an emotional disturb-

ance, an unaccustomed physical exertion, or the sudden development of a new cardiac rhythm such as auricular fibrillation may turn the scales against a heart which was performing with fair efficiency. Given such a precipitating cause and a heart with a narrow margin of safety, the development of serious symptoms may be the matter of only a few moments. The chief characteristic of congestive failure is engorgement of the venous system, either in the pulmonary circuit—"left ventricular failure"—or in the larger systemic circuit—"right ventricular failure." While failure in both circuits occurs simultaneously, it tends to predominate in one or the other, and it is venous congestion in the pulmonary circuit which produces most of the dramatic symptoms of such a crisis—dyspnoea, orthopnoea, cyanosis, pulmonary rales, pulmonary edema, and hydrothorax.

Such a situation calls for immediate and positive measures. Our first thought should be concerned with the administration of digitalis. There are only two reasons for avoiding digitalis in such circumstances; first, don't give it if the patient has been taking a maintenance dose of the drug daily over a long period of time; second, digitalis will not be particularly helpful if the patient is suffering from pulmonary edema developing in the course of a hypertensive crisis. In administering digitalis, give it intravenously, at least the first dose—the delay of a few hours in obtaining the therapeutic effect of the drug may mean a fatal outcome. I have never been impressed with the efficacy of the intramuscular route of administration, and this is particularly true in cases of congestive failure where venous engorgement militates against rapid absorption from tissues. The oral administration of digitalis has no place in the management of a crisis of such gravity. For purposes of

intravenous administration I have long used Digifolin, employing 8 or 10 cc. for the initial dose and repeating half that amount four or six hours later if necessary. Ordinarily, after the first dose, the effects are noticeable within a very few minutes and reach maximum in two hours. From that point it is usually advisable to complete the process of digitalization by the oral route.

Morphin must be regarded as the peer of digitalis in the management of a congestive crisis. It should be given when the patient is first seen and should be repeated enough times to insure a sound sleep the first night. In cases of pulmonary edema complicating hypertensive crises, morphin single handed will frequently restore the patient to a condition of comfort.

In addition to the use of digitalis intravenously and morphin, another measure of real value, especially where pulmonary edema has developed acutely, is venesection. This procedure directly reduces venous congestion. The amount of blood to be removed is a matter of individual judgment—usually less than 500 cc. is of little avail. A rough measure of the success of the procedure is the lessening of the engorgement of the jugular veins.

In a few instances it will be necessary to remove fluid from the pleural cavity. Under ordinary circumstances, this procedure is comparatively free from hazard; but with an acutely embarrassed pulmonary circulation, it should be undertaken only when other methods have failed, and in no event should more than a liter of fluid be withdrawn. The risk involved in sudden changes of intrapleural pressure often outweighs the theoretical advantage of increased lung capacity.

One final and at present outmoded method of combating pulmonary engorgement is by cupping the chest wall. The technique is simple, the apparatus always at hand, and the results sometimes gratifying. Perhaps its beneficial results are largely psychological, for it does give the manipulator a much more active role than simply standing by, feeling the pulse and waiting for other procedures to manifest their anticipated improvements. And it gives him an opportunity to impart those words of reassurance which are so vitally necessary to dispel the fear and anxiety of the patient who is

struggling grimly to catch a satisfying breath.

Cardiac crises associated with pain include two well recognized but frequently confused conditions—angina pectoris and coronary thrombosis. Levine has well summarized the present day opinion of the connection between these two syndromes by saying that coronary thrombosis is related to angina pectoris in much the same way as an occlusion of a vessel of the leg with gangrene is related to intermittent claudication. The prolonged impairment of blood supply produced by a thrombotic plugging of a coronary vessel results in permanent damage to portions of the heart muscle, while the anginal attacks may be regarded as transitory affairs leaving the heart in practically the same condition as before the attack.

There are no hard and fast rules by which cardiac pain may be identified, but fortunately the day is past when intercostal neuritis and fibrinous pleurisy are blamed for the majority of heart pains. Probably the most reliable indication of the origin of chest pain is its effect on the patient. Breast beating, extreme restlessness, screaming and moaning have little place in the picture of true cardiac pain. Grotesque postures may be assumed when the pain is bad, but as a rule the suffering is so intense and the implication of the pain so ominous that the patient tends to move very little and will not waste his breath in talking or audible complaining. As a rule he sets about enduring his pain in a very business-like fashion with a minimum of outward show.

The exact location of the original pain and the areas to which it radiates have been given undue importance. Anyone who has seen a large number of persons suffering from cardiac pain must be impressed with the diversity of descriptions he had obtained from them as to the point where the pain started, what the discomfort resembles (a boring pain, a vise-like constriction, a sense of suffocation, a stabbing knife-like pain), and where the pain shifted to. These points, I repeat, are of much less importance than noting the psychic effect of the pain on the patient. That the pain should radiate down the right arm rather than down the left is of no particular significance.

The important thing to remember about heart pain is that it arises from impaired blood supply

to the cardiac musculature. If that impairment is slight or transitory, we get the ordinary picture of angina pectoris with the inciting factor of physical or mental strain, temporary elevation of blood pressure, relief by physical rest or from improvement of cardiac circulation by vaso-dilators. If the impairment is more complete and permanent, we get the classical picture of coronary thrombosis with almost unrelievable pain coming on usually without antecedent exertion and accompanied by evidences of circulatory collapse and later by evidences of infarction of heart muscle in the form of fever, pericarditis, and leukocytosis.

The differentiation between angina pectoris and coronary occlusion depends more on the history than on any other factor. The circumstances under which the pain developed, the duration of the seizure, and the ease with which it was relieved are much more revealing than anything we can learn by physical examination or electrocardiography. In the latter connection it should be emphasized that a comparatively few cases of angina pectoris show significant abnormalities in the electrocardiogram and a great many cases of coronary occlusion show no changes there either. In other words, a perfectly normal electrocardiogram is not incompatible with either diagnosis. Too often, I am afraid, we are lulled into a false sense of security when our anginal suspects turn up with a normal electrocardiogram. I do not imply that an electrocardiogram is not helpful, but I do feel that it is unwise to sacrifice a patient's safety by subjecting him to a long trip to obtain this examination when a positive report will only serve to corroborate a suspicion that already exists and a negative report will in no way dissipate that suspicion.

Despite the similarity of the underlying pathological processes, the care of the anginal patient differs considerably from the care of the patient with coronary occlusion. This difference resolves itself down to the fact that in the former, coronary circulation is still intact although imperfect, and in the latter, a part of the coronary circulation is irretrievably lost and consequently measures directed toward improving the coronary flow will inevitably fail.

In the relief of angina pectoris, nitroglycerine

ranks high. Amyl nitrite has no advantages over nitroglycerine, is much more expensive and much more distasteful to the patient who prefers, as most of them do, to hide his disability from his associates. Nitroglycerine may be taken indefinitely and in large amounts without fear of toxic effects other than the temporary flushing or pounding in the head. I find it wise to instruct all my anginal patients to carry a bottle of nitroglycerine tablets with them at all times. A small drink of whiskey is often as helpful as anything else, and as a last resort, morphin may be used. So much for the treatment of the acute seizure, with which this paper is chiefly concerned. To discuss the prophylaxis of anginal seizures is a long chapter in itself, covering the importance of rest, both physical and mental, the use of nerve sedatives, the restriction of diet aiming toward reduction in weight, and attempts to improve coronary flow by such drugs as aminophyllin, theobromin, theocalcin, etc., and finally the various surgical procedures as cervical ganglionectomy and total ablation of the thyroid.

The management of the crisis brought about by an occlusion of a branch of the coronary arteries must take into consideration four points—(1) the relief of pain; (2) combating circulatory collapse; (3) preventing cardiac rupture; (4) overcoming sudden and serious disturbances of cardiac rhythm.

The relief of pain will almost invariably require a large dose of morphin. Time and strength will be conserved if 1/200 grain of hyoscin is added to the first or second hypodermic of 1/4 grain of morphin. Recently the use of the oxygen tent has been found valuable during the early painful stages of the seizure. Circulatory collapse, more or less marked, is almost an invariable part of the picture of acute coronary occlusion. Weiss has recently pointed out that death during these attacks is probably due to syncope from which the patient does not rally. At any rate, it seems wise to combat this tendency by putting the patient in a modified "shock position" if he is comfortable in that slightly inverted station. For similar reasons it is wise to give some circulatory stimulant such as coramine, one ampoule every four hours, or adrenalin in 1 cc. doses

if the patient is pulseless. Absolute physical rest is imperative in the early stages of a seizure to prevent circulatory collapse, and later on as infarction progresses through the stage of liquefaction, that same absolute rest must be continued in order to prevent possible rupture of the heart wall at this weakened point. It has been my observation that these patients who survive the initial attack are very apt to have a sudden fatal collapse on the 13th or 14th day following. Consequently, I do not feel that it is safe to let them out of bed for twenty-one days after their original attack, and I do not permit them to walk for six weeks. At any time after the occlusion of a coronary vessel, a sudden serious disturbance of heart rhythm is apt to develop. If a sudden and severe slowing of the rate occurs, adrenalin is indicated and should be repeated every hour or two. If there is a sudden sharp rise in the rate to 180 or above, quinidine should be given. And, finally, if there is a sudden appearance of auricular fibrillation, digitalis should be given intravenously.

Amyl nitrite or nitroglycerine will not relieve the pain of coronary occlusion, and its use should not be persisted in if one, or, at most, two trials have shown it to be ineffective. It tends to accentuate the circulatory collapse that is responsible for most of the serious manifestations of these attacks.

Mention was made at the beginning of this paper that the majority of crises arising in the cardio-vascular system in the course of medical or surgical illnesses are not primarily cardiac. There is one stock phrase in every doctor's vocabulary which he uses when he attempts to describe some grave complication of this sort. The phrase is—"The heart went to pieces." With these words he attempts to describe a sudden grave clinical change in his patient whose circulation has been fairly adequate but who unexpectedly develops a sharp elevation in the heart rate, a rapid drop in the blood pressure, and evidences of apprehension and restlessness; the pulse becomes "thready," then imperceptible, the face pale or ashen, the features pinched, the skin covered with cold perspiration, and cyanosis and coldness of the extremities appears, advancing gradually toward

the trunk. This condition is not primarily a cardiac crisis—it is circulatory collapse characterized by withdrawal of enormous amounts of blood from active circulation to fill dilated capillaries and venules which have completely lost their normal tone as the result of prolonged or overwhelming infection or as the result of severe trauma. Naturally, in such a crisis, little is gained by treating the condition as one of heart failure. These individuals require salt solution intravenously, blood, oxygen, heat, and stimulants to the vasomotor centers, such as strychnine, caffeine, coramine, and similar preparations. Here again digitalis has no place. To depend on this drug in the face of circulatory collapse complicating serious illness is to court disaster. The greater the delay before instituting effective measures, the greater becomes the chance of establishing irreversible and, hence, fatal changes in the tissues of the body.

The possibility of the development of a cardiac crisis in the event of surgery on a patient suffering from pre-existing heart disease is a consideration which bothers all of us at one time or another. However, patients with heart disease of nearly all types (rheumatic, hypertensive, thyrotoxic) go through anesthesia and surgical operations exceedingly well. I have had to advise operation on many individuals with auricular fibrillation, with severe hypertensive heart disease, and even on one with complete heart block but with no bad results which could be attributed to aggravation of the heart trouble by the anesthetic or operation. In fact the tumultuous thyrotoxic heart is almost always benefitted; and even if auricular fibrillation develops as the result of manipulation of the thyroid gland, quinidine quickly restores the normal rhythm in the great majority. On the other hand, marked congestive failure, coronary thrombosis, severe angina pectoris, and syphilitic aortitis must be regarded as very real hazards, and operation on patients suffering from these conditions must be limited to actual life saving measures. Several unhappy experiences have convinced me that operation on a hypertensive patient is in itself less dangerous than the postoperative use of narcotics for the relief of pain, since these frequently result in such a drop in blood pressure that secondary

circulatory catastrophes occur in the form of cerebral thromboses.

The cardiac and circulatory crises in the foregoing paragraphs constitute some of the few true medical emergencies. Some are easily recognized, but those of the non-congestive type, the most fatal groups, often present little but what can be learned from the history. All of them must be met, like any emergency, with positive measures and a minimum of lost motion. Don't expect atropin to "dry up" the rales of pulmonary congestion when the indications are for a massive dose of digitalis by vein; don't expect hypodermic stimulants alone to overcome the effects of circulatory collapse; don't make light of any chest pain until its origin is proven to be extra-cardiac; don't be misled by a negative electrocardiogram; most of all, don't feel, as we rightly do in many medical diseases, that masterly inactivity gives the patient his greatest chance of recovery.

DISCUSSION

Dr. F. Eugene Zemp, Columbia:

Dr. Mead has given us an excellent and most practical paper on the most serious and commoner types of organic heart disease. I think it is well to bear in mind that when one sees a patient for the first time who has a heart attack or heart disease, he should approach him with an open mind. The diagnosis of heart disease should be established. This may be very easy and self evident at times, but quite frequently it is rather difficult, for the cardinal symptoms of heart disease are often caused by other conditions. A careful examination of the heart, pulse, and blood pressure is essential, and the examination should be complete enough to rule out other conditions that give the symptoms of heart disease. For instance, palpitation or a rapid heart is often caused by neuroses or unstable sympathetic nervous system, gas on the stomach, anaemia, hyperthyroidism, toxemia from bad teeth or tonsils, coffee, tea, coca-cola, tobacco, alcohol, etc., and is often found in visceroptosis, undernutrition, and fatigue. Dyspnea may be of the nervous sighing type or due to gas, obesity, severe anaemia, asthma, emphysema or some acute chest or abdominal condition. Pain may be due to a myositis, intercostal neuritis, shingles, pleurisy, pneumonia, spontaneous pneumothorax, aneurysm, mediastinitis, cholecystitis, cholelithiasis, or referred to the heart from diseased teeth and tonsils. Edema may be angioneurotic, allergic, nutritional, myxedematous or nephritic in type, or caused by varicose veins, cellulitis, fallen arches, or injury.

Many people who complain of their heart acting most peculiarly and who think they have some ter-

rible heart disease have only functional disturbance. In this group we have sinus arrhythmia, palpitation, tachycardia, simple and paroxysmal, extra-systole, pseudo-angina or effort syndrome. These patients become frightened, introspective, heart conscious, and often fix in their mind heart disease. The physician should explain thoroughly these conditions to them and assure them that the heart itself is sound.

When organic disease is found and the type determined, then it can be treated in the proper manner as so well brought out in Dr. Mead's paper.

Dr. L. T. Gager, Cardiologist, U. S. Veterans' Administration Hospital, Columbia:

Dr. Mead is to be congratulated upon bringing before you this important subject. When internists get together, they always, of course, find something to argue about; but, in the main, one must agree with Dr. Mead's classification of heart failure into the congestive type, on the one hand, and the anginal type, on the other. Some of us might add a third—the type of left ventricular failure characterized by so-called cardiac asthma or paroxysmal dyspnea. But, congestive failure, on the one hand, and anginal failure, on the other, constitute the two types of cardiac crisis which Dr. Mead has discussed.

Now, what to do. Dr. Mead insists rightly, that we must first make the diagnosis, and it seems to me that often we can avoid the emergency and its hazards if we keep our eyes open to the approach of heart failure. The early symptoms and signs of these two types of failure are therefore what I would particularly emphasize. In the case of congestive failure these are breathlessness on effort, a rising heart rate, cough, perhaps a little expectoration, dependent edema, a tender liver—and that is something that is often overlooked, in my experience. Perhaps a third of the heart cases in a large hospital come in because of abdominal symptomatology. The difficulties of diagnosis will be obviated sometimes if we can find a reasonable cause for heart disease or reasonable evidence of heart disease; and the best evidence, in my opinion, is enlargement of the heart. It takes only a moment to palpate the point of maximal impulse, or the apex beat; and enlargement thus demonstrated is, to my mind, incontrovertible evidence of heart disease.

The diagnosis of the anginal type of heart failure, of course, is made by the detection of pain on effort or, in the case of coronary thrombosis, of lasting pain without relation to effort, due to closure of part of the coronary tree. In my experience, ninety per cent of this anginal pain is midline pain, substernal. It may or may not radiate; it may or may not appear to the patient to be threatening his life.

There are, as Dr. Mead says, some bizarre pictures. For example, the other day I saw a man with acute thrombosis who gave an unusual history. A dog on his farm went wild, and he had to take it out to the woods and shoot it. That was a great shock, because he liked his dog. In fifteen or twenty minutes

pain was felt on the ulnar aspect of both hands. At the rate of an inch or two a second, according to his description, it crept up his arms, then into his chest toward the sternum, until it met at the midline; and then he had the typical vise-like sensation.

Morphin, of course, is a life-saving drug in patients both with thrombosis and with pulmonary edema. In regard to digitalis, I personally am strongly against its use in acute coronary thrombosis. In most cases of congestive failure my feeling is that the oral use of adequate doses of digitalis is usually sufficient for the emergency. One difficulty is that many of these patients have had some digitalis before they are seen by you; Hence it is easy to overdigitalize, and in recent years there are not a few deaths reported from over-effect of digitalis.

Happy is the patient, Sir Clifford Allbull said, who has a few bad habits; when he has heart disease, we can do a good deal for him. We can prescribe more rest; we can take a burden off his heart, when it is a matter of obesity or of the use of hard liquor or of too much smoking. Indeed, the vasoconstrictor effect of nicotine has now been well established. Then, by the use of digitalis, we can often maintain our patients in a state of circulatory equilibrium.

I was much interested in Dr. Luken's new book, "The Clinical Use of Digitalis," to find as his concluding statement Wenckebach's observation that "a long life is too short to learn enough about this wonderful drug."

Dr. A. I. Josey, Columbia:

Dr. Mead presented an extremely interesting and common disease, or series of diseases, in a concise, thorough, and clear manner. The thing which, in the few minutes that I have, I should like to discuss, is the differentiation of cardiac pain. The pain of angina and the pain of coronary occlusion may present itself in the most bizarre ways. It does not have any particular location at all. As we all know, a large part of it is chest pain. Pain, however, may occur in the back, the neck, the jaw, down one arm or the other; and in a number of instances it is abdominal.

As Dr. Mead has pointed out, the differentiation between anginal pain and the pain of coronary occlusion is quite important. The prognosis is quite different, and the treatment, of course, differs considerably. The patient with angina is the one who typically has the "arrest" appearance, stopping in his tracks, making no movements whatsoever. He knows that rest relieves his pain; he has usually had it before, and he has found that merely an instantaneous period of rest for a short time will relieve it. He is the man with the bounding pulse, the pale face, and has a rather rapid heart action. The blood pressure is usually high but not necessarily so.

In contradistinction from the man with angina, the man with coronary occlusion is very often restless. His pain is not relieved by being still, and consequently he may be writhing in pain. I have

seen more than one case that was pacing the floor. The pain is of much longer duration, is not relieved by nitroglycerin, and in most instances requires large doses of morphin for relief. The pain tends to recur with a certain amount of rhythm; it is not a constant pain; I should like to express it in that way. The pulse in a man with coronary occlusion is often slow. The blood pressure is usually low. By keeping those facts in mind I have found it much easier to differentiate angina and coronary occlusion.

I should like to repeat that I have enjoyed Dr. Mead's paper immensely and should like to thank him for coming here and presenting it to us.

Dr. Robert Wilson, Charleston:

There are just one or two words of comment which I should like to make. Dr. Mead has covered the subject so thoroughly and so admirably that there is not a great deal left for us to say.

I wish to emphasize one point, particularly. A great deal has been said about substernal pain, and it is important in diagnosis or differentiation, but we must remember that all of these cases do not have pain. The pain varies tremendously both in character and intensity. There may be only a sense of tightness, or perhaps merely a sense of burning, as in a case I have seen recently in which the chief complaint was an intense burning in the chest. He died about eight or ten days after the original stroke. A most interesting case of mine had a severe pain in the region of his thyroid cartilage and died within a half hour. He complained of no other pain, and, incidentally, he had never had any indication of cardiac disease. His blood pressure had ranged from 110 to 115 systolic, 60 to 70 diastolic. The autopsy revealed a thrombosis in the main branch of the coronary artery.

Nutrition is fundamentally important in cardiac function, and I would therefore lay more stress than Dr. Mead appeared to lay upon the use of oxygen. The administration of oxygen, preferably by means of the tent, over a period of a few days is unquestionably of very great value.

I also would emphasize the danger of digitalis, although a good many authorities consider it safe. In two cases I feel sure the sudden death of the patient was dependent upon ventricular fibrillation set up by large doses of digitalis.

Dr. Mead, Closing the Discussion:

I am very grateful to Dr. Zemp for bringing up some points in differential diagnosis which I did not have time to cover in the body paper. I heartily corroborate everything Dr. Gager said about the best treatment of these cardiac crises being their prevention. Unfortunately, that is not always possible. Of two of the worst cases I have had recently, one came here from Canada on the advice of his physician, because he had a little "nervous heart disease," he said, and was paying too much attention to it. By the time he had driven a thousand or more miles to Florence he was thoroughly exhausted, had

terrific pulmonary edema, and was very nearly dead. The other case, a young lady, had the benefit of Christian Science treatment following an attack of rheumatic fever and had reached a state of extremis, also. Very often we see patients in these crises and have nothing to do with their prevention.

I should like to thank Dr. Josey and Dr. Wilson for what they said about pain in the chest. Its location and character are not very diagnostic points. But I do say this; if you have any disturbance in the chest at all, just discomfort or a boring pain or anything of that sort, you had better suspect the heart before you suspect any other cause—neuritis or some disease of the spine.

CHRONIC HOARSENESS

By

E. W. CARPENTER, M. D., F. A. C. S.

AND

WM. M. CARPENTER, M. D., B. S., A. B., M. S.
GREENVILLE, S. C.

"The human voice has an individuality which eludes description. There is some quality about it which each person possesses which is peculiar to that person. Its quality may be impelling or repelling, persuasive or distrustful, soft, musical, alluring, harsh, etc. Whatever its quality is, it is individualistic. The human voice is produced by a wind instrument capable of exquisitely delicate adjustment, yet of sturdy endurance. The quality and inflections of the human voice can convey phases of the emotion which is beyond the power of the spoken word. This individuality of the voice is projected all through nature."

Hoarseness is used in this paper in the sense of an alteration in normal tone of the individual.

Hoarseness is a symptom and not a disease; it is a frequent and casual symptom and often a foreboder of very serious results. Sometimes the sequence comes with lightning-like rapidity, and at other times its seriousness is manifested only after patient persistent study.

Dr. Chevalier Jackson has listed fifty (50) causes for hoarseness. In this paper we can only stress the importance of the symptoms and discuss a few of the most important causes of chronic hoarseness with especial reference to new growths.

The causes of chronic hoarseness may be divided into four groups; viz; (1) Inflammatory followed by hypertrophies and ulcerations; (2) New Growths; (3) Neuroses; (4) Paralysis.

A consideration of the first cause leads to the observation that most doctors when appealed to for hoarseness dismiss the case with a diagnosis of laryngitis, for which they prescribe a gargle, a sedative, and a cough mixture, with the instructions to return if not relieved. Seldom is the cause of hoarseness identified at first visit or the patient advised to stop or greatly limit the use of the voice, which is as prime a requisite as rest is for an inflamed joint. The physician should never treat chronic hoarseness unless he can identify its cause.

Anatomy—To visualize the reason for hoarseness we must know the mechanism of speech. The larynx consists of the hyoid bone, to which are suspended the thyroid and the cricoid cartilages. The larynx begins at the upper border of the thyroid and ends at the lower margin of the cricoid. These cartilages are so articulated that they have very free movement. The vocal bands are attached to the anterior angle of the thyroid and to the arytenoids which articulate with the upper posterior margin of the cricoid. This cone-shaped aperture is lined with mucous membrane, functions through numerous muscles which produce tension, adduction and abduction of the vocal cords. The larynx is held together by strong ligaments and reacts principally through the pneumogastric nerve. The correct approximation and vibration of the vocal cords are the basic necessity for normal speech. The expiratory air blast forcing its way past the keen edges of the vocal cords is set in motion by the vibrations of these cords. This plus the force and volume of the column of air, together with the length and tension of the vocal cords, determines the pitch of the sound. The pharynx, mouth, tongue, and sinuses determine the quality of the sound. When the vocal cords fail to function properly, hoarseness or a distorted voice results.

Physicians should never prescribe for or dismiss a case of hoarseness until they have exhausted every resource in perfecting a

diagnosis. In adults a mirror can be used, in children a direct speculum.

The inflammatory group of causes include the acute infections, syphilis, tuberculosis with their sequence of infiltration, hypertrophies, and ulcerations. The acute infections frequently cause laryngeal inflammations with hoarseness as the result of swelling of the cords, the ventricle, and the subglottic space. We have never seen a chancre in the larynx, but secondary and tertiary lesions are frequent in the experience of every laryngologist. We still believe that the peculiar dark red color, deep infiltration, and raucous voice are at least suggestive of syphilis. This disease when seen in adults most often involves the deep tissues including the perichondrium and cartilages, and if not controlled results in extreme destruction. At times it is very difficult to identify pulmonary tuberculosis with involvement of the larynx. We see no reason why a primary lesion of the larynx could not occur under certain circumstances, but many careful diagnosticians deny its presence. This disease has a preference for the posterior portion of the intrinsic larynx. We believe that the electric cautery is our best agent in dealing with these lesions, but one must have a large experience in its use to get ideal results. We have used the cautery snare in amputating the epiglottis, destroying granulations and stimulating ulcers to heal. The art in its use consists in getting the correct amount of current in the applicator.

Extensive laryngitis may be present with slight dysfunction of the cords, or the cords may be extensively involved with little involvement of the rest of the larynx. In considering the second division of causes (tumors) we again emphasize the wisdom of carefully seeking of the exact cause of a subacute, a chronic or recurring hoarseness.

Diagnosis—Ofttimes it requires more than one sitting to thoroughly study a larynx, because some throats are hyperesthetic, and some patients are psychotic, and an opinion should never be volunteered until it is based on careful observation and the use of all diagnostic aids necessary, including a biopsy if an ulcer or growth is present whose nature we can not vouch for otherwise.

Syphilis, tuberculosis, new growths, and

catarrhal inflammation are the most frequent causes of hoarseness in the adult. These may exist alone or in combination. At times it is impossible to be dogmatic in an opinion by inspection, and for that reason a complete survey leading to a biopsy may be necessary. As a rule, syphilis prefers the anterior part of the larynx and tuberculosis the posterior portion, but this rule is not infallible. Early cancer is most frequently located in the intrinsic larynx on the corda or ventricular bands, and hoarseness is the ONLY EARLY SYMPTOM OF CANCER OF THE INTRINSIC LARYNX. The interior of the larynx has but slight lymphatic connections, and malignant lesions as a rule give long and patent evidence of their presence by hoarseness. Pain is more evident in tubercular lesions. Every case of unexplained hoarseness lasting more than a few weeks SHOULD BE CONSIDERED CANCER UNTIL PROVED OTHERWISE.

Catarrhal inflammation of the cords sometimes taxes one's ingenuity in locating its etiology, and not only the help of the internist is required, but an astute laryngologist must exclude the nasal sinuses and the habits of the patient. Nasal drops originally prescribed for an acute sinus attack sometimes becomes a habit, and these substances flowing through the larynx excite and keep up a catarrhal condition and find a resting place in the lungs. This is particularly true in children. Just as upper respiratory pathology may cause involvement of the larynx, it is equally true that chronic suppuration below the cords, such as bronchiectasis and abscess of the lung, may excite and keep up a chronic laryngitis by bathing its structures in expelled pus.

Malignant lesions, being so slow to become extrinsic, make it a huge reflection on doctors to permit development of so many hopeless cases of cancer of the larynx.

Biopsy—Careful preparation should be made to meet any exigency which may arise. If the growth can be completely removed and the cautery applied, a cure may result. The pathologist may report a low grade malignancy and the case can then be watched. There is much danger in putting too much confidence in the laboratory report of a biopsy specimen. It is not as easy to do a biopsy as it is to describe

one, and the possibility of an insufficient specimen is always present. While the size of the specimen may appear to be generous, it is always possible that we may not have penetrated to or through the basement membrane. Therefore we should always try to assure the adequacy of our specimen. We prefer suspension laryngoscopy under a general anesthetic. With this method both hands can be used, deliberation practiced, and every part of the larynx can be manipulated without strain on the operator. Hemorrhage can be controlled with greater facility, and the operative field can be kept free from secretions and blood.

Operators of wide experience have never observed a case where the delay caused by doing a biopsy complicated the situation or subjected the patient to greater risk.

Precancerous lesions. "Ref." (3) "Every surgeon with large experience in dealing with cancer of the larynx has seen cases that can be very properly classified as "precancerous," however faulty such a word may be from a purely scientific, histologic point of view."

"Ref." (4) "It is not uncommon for apparently benign conditions in the larynx eventually to become malignant. I use the word malignant to cover all types of sarcoma and carcinoma in their varied manifestations and the apparently benign growths which eventuate in malignant processes. These, I am inclined to believe, are malignant from the start, the phenomena of frank malignancy being held in leash by some biologic factor yet unknown. Dr. Jackson speaks of them as premalignant, or precancerous—an excellent definition. My clinical experience in watching many apparently benign conditions progress slowly, at times very slowly, to frankly malignant conditions suggests that they may be more than premalignant and that somewhere in the structure concealed from the physical eye, malignant changes are active long before they become manifest. In other words, premalignancy may mean the initial stage of malignancy and a true part of it."

"The classification into the intrinsic and extrinsic, though based on location is fundamentally explained by lymphatic distribution. All of the lymph channels in the interior of the larynx empty into two nodes, no efferent vessels have ever been demonstrated leading out of these

nodes. For this reason intrinsic cancer is for a long time a strictly local process and as such yields a higher percentage of cures than is obtained in visceral cancer elsewhere in the body. A cancer of the larynx is considered intrinsic when it involves the vocal cords, the ventricular bands, or any part of the interior wall of the larynx. When the growth has extended over the upper orifice of the larynx, involving the aryepiglottic folds, the posterior commissure, or the base of the epiglottis, the process is regarded as extrinsic. Intrinsic cancer of the larynx is curable in about eighty-two per cent of the cases if of limited extent."

"Extrinsic cancer of the larynx is curable by operation in probably not more than twenty-five per cent. In these extrinsic cases radiation, including the use of radium as applied by George E. Pfahler and roentgen ray therapy by the Coutard technique, will yield as good results."

Operations for malignant growths: When done now for intrinsic cancer of the larynx, the mortality from the operation is probably not over three to four per cent. As the disease becomes more extensive, the failures increase. It requires exquisite judgment to know when to do a laryngofissure or a laryngectomy. Laryngofissure with its various techniques preserves more or less disfigured voice and a natural air way. All these cases should be watched carefully, always repeating a biopsy when doubt arises. Later a more radical operation can be done if the necessity arises. Laryngectomy has a final mortality of over forty per cent, due to late operations.

Recent X-ray experiences seem to promise much. We have one case of No. Two Grade Carcinoma removed under suspension followed by careful application of cautery and Coutard's method of X-ray treatment, which has been under observation for two years with no return. Two biopsies of granulation tissue have been done with no malignancy. We have under observation one case of total laryngectomy for intrinsic grade three carcinoma involving the ventricle and cord on one side without the use of X-ray either before or after the operation. This case bore out our observation that healing of wounds was much more prompt when no X-ray had been used. This patient was out of the hospital in nine days, and the feeding tube

in esophagus was removed in three weeks. We are watching several cases from which benign growths have been removed. We believe that such cases should return and that routine studies should be done at intervals over a period of several years.

After Care of Total Laryngectomy—Immediately following the operation the patient should be turned from side to side at short intervals and taught to cough gently by partially blocking the tracheal opening with sterile gauze packs and gently compressing the pulmonary air. This helps to clear the trachea of mucus and prevents atelectasis. The tracheal opening should be covered with several layers of gauze wet with sterile water, or the air in the room should be saturated with steam. The dressings should be changed often enough to be kept clean. Suction apparatus and instruments for removing excess excretions and scabs should be kept sterile and handy. Feeding should be abundant and well balanced and given through a large glass syringe forcing it through the small feeding tube. The upper trachea behaves differently in each case. The opening should be protected, and the patient should breathe the warm air next to the body. It is very desirable to carefully suture the skin to the tracheal mucosa, drawing the skin into its lumen. This prevents too large an opening and if the patient has a thin neck with redundant skin some what of a valve is formed and the tracheal mucosa is better protected and there is less tendency for the opening to contact.

Types of Laryngeal Tumors treated by us: (1) Polyps; (2) Carcinomas grade 2; (3) Angiomas; (4) Carcinoma grade 3; (5) Benign Hyperplasia; (6) Benign Papillomas; (7) Tubercular ulcers; (8) Fibromas; (9) Tubercular Tumors; (10) Tuberculoma; (12) Alveola Carcinomas; (12) Cystic polyps; (13) Contact ulcers.

Total laryngectomy is a serious procedure, involving the happiness and economic relationship of the individual, and should not be undertaken without adequate consultation. Cancer does not always appear as a discrete entity in a clear field; it may appear as a complication in an already diseased larynx. Cancer, syphilis, and tuberculosis have all been seen at the

same time in a larynx. The diagnosis at times is exceedingly difficult.

Moving pictures of (1) Biopsy under suspension; (2) Total laryngectomy; (3) Artificial larynx in use; (4) Simplified technique for esophagoscopy and bronchoscopy.

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DISCUSSION

Dr. Thomas R. Gaines, Anderson, S. C.

Dr. Carpenter has brought to us a subject of interest to the profession as a whole and has covered it so admirably that we can only stress some of the points already given. Since the family physician sees these cases first, it is his duty to know the possible serious consequences and to inform the patient. To one inexperienced in the use of a laryngeal mirror, the larynx is a hidden recess, and even the experienced laryngologist at times finds it tiresome and trying to properly examine this region. Frequently we see a case several times before we are satisfied that a thorough inspection has been done. In children, and occasionally in adults, the direct laryngoscope must be used, occasionally requiring a general anesthetic.

Acute cases of hoarseness, including acute laryngitis, respiratory infection, and diphtheria, are usually disposed of in short time except when accompanied by laryngeal stenosis, when special treatment may be required. It is persistent hoarseness which we wish to stress. In these cases of hoarseness which persist for six weeks or more there are three diseases which should first be ruled out; namely, cancer, syphilis, and tuberculosis. No time should be lost in determining the etiologic factor, for either of these three will cause lasting, irreparable damage if left unchecked; yet all will respond to treatment if diagnosed early. Diagnosis is established by the history, by inspection of the larynx, blood and spinal Wassermann, sputum and chest examinations, and possible microscopic examination of tissue.

Treatment of tubercular laryngitis is that of pulmonary tuberculosis, possibly supplemented by the cautery. In syphilis of the larynx, anti-syphilis treatment is usually effective. In cancer, treatment is entirely dependent upon the stage of advancement. If in the early stages, laryngo-fissure; if moderately advanced, laryngectomy; if very advanced, X-ray and radium.

Mention should be made of the fact that chronic hoarseness in children is usually due to laryngeal

papilloma, the treatment of which is removal through a direct laryngoscope.

POSTOPERATIVE RECTAL INJECTION

By

IRWIN GRIER LINTON, M. D., CHARLESTON, S. C.

The enema has many uses and abuses, the latter often outnumbering the former. As is the case with any good thing, there are always those who will abuse it; as do the faddists who ardently believe that an enema will remove all dangerous poisons from the body—their victims being the stylishly constipated ladies, many of whom are neurotic and whose occupation is mainly sitting and sipping, who start with a small enema and end up with daily colonic irrigations. Often these give them great joy and satisfaction for a time, and delight no end the society doctor or quack who thereby gains the questionable pleasure of landing in a higher bracket income tax assessment. Then there is the too frequent enema which makes a patient cry in alarm when there is a knock on the door. "Who's there, friend or enema?" Lastly the beneficial injections given for either the effect on temperature, fluid balance, nutrition, as a means of giving drugs, or to assist evacuation in cases of distention.

In this brief discussion the retention enema as a means of restoring and maintaining fluid balance following operation is to be considered.

With few exceptions all operations cause some upset in the fluid balance of the body. This varies greatly with the condition of the patient, the temperature of the operating room, the duration and extent of the operation, and also the skill of the operator. In major procedures an immediate postoperative intravenous or hypodermoclysis of one litre is recommended and indorsed by physician anesthetists, and medical consultants. When indicated, intravenous injections are superior in their rapid therapeutic effect upon the body. However, there are times when this method is not advisable, and there is always a risk associated with the introduction of a foreign substance into the vascular tree, small though it may be. With the poor private

patients the expense of this type of therapy if continued must also be considered.

The subcutaneous injection of fluids is effective, but unless novocaine is used it is painful. At least it is disquieting to the patient and requires the constant attention of a nurse. Here again the danger is small, but sloughs have occurred, and I have seen one autopsy in which the solution was found in the pleural cavity.

In most cases fluids cannot be given by mouth at once postoperatively, and often not for a day or more. Therefore in coming to a decision as to what postoperative routine to follow, the ability of the lower colon to absorb solutions offers a ready avenue of approach to the problem of medication.

The rectal injection has the advantage of being an unsterile procedure, and can be done only by a nurse or a good orderly. In relation to absorbability from the rectum it has been often stated that it stands very close to the intravenous and subcutaneous routes. Furthermore, when drugs are added to the rectal injections, they are put into the general circulation without being filtered or altered by the liver, or stomach (3).

The technique of giving the retention enema is important. The lateral position is best, with preferably the patient on the left side. Best results are gotten by using a catheter which is inserted 2 to 3 inches (5-7½ cm) above the sphincter. The fluid should be at body temperature, injected slowly, and about 180-240 cc given. Some men who tie the appendix doubly with heavy chromic cat gut give a quart of solution on return from the operating room; however, the smaller amounts would seem to be more advisable.

These retention enemas are advantageously given every four to six hours, for the first twenty-four to seventy-two hours postoperatively, depending on the rapidity with which fluids can be taken by mouth, and how well they are absorbed by the rectum.

It has been found that for maximum absorption the solution must be of such concentration that the osmotic pressure is from the gut to the tissue and not vice versa. A saline solution of half normal strength is found to be most readily absorbed, and a plain tap water enema

is better than the frequently used normal saline solution.

If drug therapy is desired, digitalis may be given. Reinhold made experiments on cats with a preparation of digitalis (digipurat) and found that the effect was the quickest after intravenous injection, the next most rapid with intramuscular injection, and the third in absorption with rectal instillation. With oral administration the effect is very slow. For rectal administration, "Meyer recommends 1 cc. of digipurat diluted with 10 cc. of water and injected with a glycerine syringe into the rectum. This enema is given two or three times a day. Of course, the rectal injection can be combined with the intravenous. This combination is especially indicated in cases of long-lasting hepatic congestion, in which for external reasons an intravenous injection cannot be made. Intravenous injection is rejected because of the danger of thrombosis and embolism. Sedatives in solution can be given with the injection. Theoretically as a protective process for the liver, it would be advantageous to give glucose which is absorbed, when in dilute solutions, and carried largely to the liver."

The cases in which this therapy is contraindicated are those in which there has been suturing of the colon, and also in gynecological cases in which the freeing of adhesions has caused a thinning of the rectal wall.

Therefore it is advocated that we take advantage of this simple means of maintaining the fluid balance following operation. Where necessary, glucose, digitalis, sedatives, and so on, may be added. The procedure is simple, not fraught with danger, inexpensive, and of unquestionable benefit to the patient.

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THE OLD YEAR AND THE NEW

With this issue Volume XXXIII of the Journal with its Index becomes history. From many standpoints both the State Medical Association and the Journal have had a successful year. The activities of organized medicine in South Carolina have been reflected by an in-

creased membership and enlarged programs in many of the constituent county and district societies. The progress of the State Board of Health, which is the State Medical Association, has been phenomenal. The expansion of the Medical College of the State of South Carolina, our splendid Class A Medical School, has been encouraging. In other words, medical affairs in general in our State have been on the up grade and the interest along all lines inspiring.

All of the officers of the State Association, including every member of the Council, have been most active by personal visitation, by correspondence, and by continued enthusiasm. Dr. L. M. Stokes, President of the South Carolina Medical Association, has been untiring in his efforts to visit every section of the State before the year closes. This attitude on the part of our President has brought about a solidarity of purpose on the part of the membership generally. The plans for the Myrtle Beach meeting in 1938 are well under way. Dr. O. B. Mayer, of Columbia, heads the Scientific Committee again the coming year.

While these comments concern South Carolina Medicine and in many respects make up an enviable record, when one looks beyond the borders of the State there are distressing factors on the horizon. Economic conditions have always been of real concern to the medical practitioner, since for the most part the average doctor must live by his earnings from his daily practice. It seems clear that the field of private practice has been narrowed in many directions, and, of course, there is still the menace of possible further limitations by State Medicine in some form. The vast majority of the active practitioners in the United States are members of the American Medical Association, and through their delegated bodies they have voiced in no uncertain terms their determination to make every effort to be the leaders in any form of modified practice proposed for the health of the American people. If this determination can be carried out in its major aspects, all should be well. If this cannot be done, the unfortunate experiences of many other countries may be our heritage. We are stepping out into the New Year with a bold courage and a hopeful feeling that nothing of a drastic nature will occur in the near future.

JOINT MEETING PEE DEE MEDICAL SOCIETY AND
THE MARLBORO COUNTY ANNUAL MEETING

For many years the outstanding medical event in South Carolina has been that of the New Year's meeting at Bennettsville. This dynamic refresher course in medicine and surgery draws an attendance from several Southern States, and early in January there will be a repetition of this program and in addition there will be the added attraction of the Sixth District Association. It is expected that this arrangement will assure an attendance of one hundred and fifty or two hundred physicians. The scientific program provided at Bennettsville is always of keenest interest, and every doctor who has been honored by an invitation and attended the meetings has found an atmosphere of hospitality unsurpassed in the South. The annual banquet is another evidence of the cordial reception awaiting the visitor.

PRINCIPLES AND PROPOSALS OF THE COMMITTEE
OF PHYSICIANS

Considerable interest has been aroused by a group of four hundred and thirty physicians from various sections of the country in a manifesto proposing ways and means for the improvement of medical care in the United States. These principles come under four heads and the proposals under nine heads as follows:

PRINCIPLES

1. That the health of the people is a direct concern of the government.
2. That a national public health policy directed toward all groups of the population should be formulated.
3. That the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution.
4. That in the provision of adequate medical care for the population four agencies are concerned: voluntary agencies, local, state, and federal governments.

PROPOSALS

1. That the first necessary step toward the realization of the above principles is to minimize the risk of illness by prevention.
2. That an immediate problem is provision of adequate medical care for the medically indigent,

the cost to be met from public funds (local and/or state and/or federal).

3. That public funds should be made available for the support of medical education and for studies, investigations, and procedures for raising the standards of medical practice. If this is not provided for, the provision of adequate medical care may prove impossible.
4. That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine.
5. That public funds should be made available to hospitals that render service to the medically indigent and for laboratory and diagnostic and consultative services.
6. That in allocation of public funds existing private institutions should be utilized to the largest possible extent, and that they may receive support so long as their service is in consonance with the above principles.
7. That public health services, federal, state, and local, should be extended by evolutionary process.
8. That the investigation and planning of the measures proposed and their ultimate direction should be assigned to experts.
9. That the adequate administration and supervision of the health functions of the government, as implied in the above proposals, necessitates in our opinion a functional consolidation of all federal health and medical activities, preferably under a separate department.

These proposals have been sent direct to the officers of medical societies throughout the country with an invitation for official consideration of them. At the recent Conference of Secretaries and Editors of State Journals held in Chicago a detailed discussion was had of the matter. At this same time the Board of Trustees of the American Medical Association was in session and replied to the proposals adversely as published in an editorial in the Journal of the A. M. A. for November 27, 1937. Similar action is being taken by constituent societies of the A. M. A. in rapid order. One of the most emphatic of these reports has come in from the Ohio State Medical Association and is in line with the opposition voiced by the Trustees of the A. M. A. It is significant that, as pointed out by Dr. Robert Wilson, Dean of the Medical College of the State of South Carolina, in the News and Courier of November 28, 1937 that not a single South Carolina physician's name appears on the above document. Dr. Wilson, speaking for himself, analyzes these principles and proposals in a very clear cut manner and warns of the dangers inherent therein to the

practice of medicine in this country if carried out. We have been so impressed with the stand taken by the Ohio State Medical Society that we quote herewith a summary of the same as follows:

"It is the opinion of The Council of the Ohio State Medical Association that round-robin circularization of the profession by certain small groups within the profession will accomplish nothing toward an improvement of the quality and distribution of medical care, but, on the other hand, will tend to create confusion and misunderstanding. Official county, state, and national medical societies have done more to bring about improvements in the character and distribution of medical care than

any other single organization or group organizations and agencies. They will continue to use their best efforts to develop ways to provide the people of this country with competent and adequate medical care and to readjust the distribution of medical service so that the best interests and welfare of the people will be safeguarded. These organizations—county, state, and national—have facilities with which to investigate conditions, and have within their membership men entirely competent to analyze the data assembled and formulate constructive ways of trying to meet health and medical problems. They are functioning, and will continue to function, along these lines, making propaganda campaigns similar to those undertaken by "The Committee of Physicians . . ." and other unofficial groups, unnecessary and impracticable."

DERMATOLOGY AND SYPHILOLOGY

BY J. R. ALLISON, M.D., COLUMBIA, S. C.

THE SULFANILAMIDE FAD AND THE SKIN

By

J. VAN DE ERVE, JR., M. D., CHARLESTON, S. C.

When any new drug is advertised as widely, and used as widely, with as little clinical knowledge of its reaction, as has been the drug, sulfanilamide and its compounds, caution is needed. The author has long campaigned against the ill-advised use of the two-edged sword, arsphenamine, in treating chronic boils. The same must now be said for the use of sulfanilamide in any except the clean-cut acute streptococcic infections, accepting perhaps its use in gonorrhea also.

The usual reports of toxic manifestations are pouring in to the publications. It is well, then, to review what is known of the cutaneous manifestations.

Cyanosis of the mucous membranes and, to a lesser extent, of the whole cutaneous surface, was early reported and its danger somewhat minimized, though transfusions have been necessary in a few cases. Likewise jaundice, with its attendant yellowish discoloration of the skin, has been fairly frequent.

Toxic erythema has been reported in a few cases. In a personal communication from a urologist, the occurrence of several cases of erythema multiforme of the nodosum type have

been reported. Another case of eczematous reaction with diffuse reddening, oozing, weeping, and crusting has been seen in my practice.

A case has recently been reported in the A. M. A. J. which suggests the possible photosensitizing action of the drug. A patient with gonorrhea under heavy medication with sulfanilamide was exposed to the hot sun for some hours during his daily work and woke up the next morning with an acute urticarial eruption of the angioneurotic type with swelling of the face and eyelids, and choking sensations in the throat. This disappeared on cessation of drug and exposure.

While it is too early to list authoritatively the cutaneous reactions to the drug, attention is called to their existence. In any case of dermatitis coincident with the administration of sulfanilamide, the possibility of a causal relationship should be considered. It is well, also, to call attention to that fact that over-enthusiastic reception of the drug as a causal factor in these eruptions must be discounted. Some of the reported reactions may have occurred in their natural incidence without relation of any kind to the fact that a new drug was taken.

In conclusion, we feel that until more is known, the drug should not be used in ordinary dermatoses except where a clear-cut streptococcic etiology is demonstrated.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"THE TREATMENT OF HERNIA"

In the *Annals of Surgery* of September 1937, there is a symposium on hernia which contains a great deal that is of interest. It appears to be a very critical and unbiased consideration of the treatment of hernia. It is disappointing in that it shakes our faith in some procedures which are quite generally accepted. On the other hand, it is heartening in that it brings evidence to bear that most herniae are best treated by adhering to the well established simple principles formulated by Halsted forty-five years ago: gentle handling of tissues and leaving behind a minimal amount of the least irritating foreign material.

Dr. C. G. Burdick and Dr. B. L. Coley, of New York, report on their personal experience in the injection method of treating hernia in 66 patients with 99 herniae. The work has undertaken with great care for the purpose of determining whether it should be used at the Hospital for the Ruptured and Crippled in New York. Several solutions were used, and all found to be of about equal value. There were comparatively few sequelae; the method seemed reasonably safe. The immediate results were encouraging; however, in 47 out of 56 cases a definite relapse was noted after a few months. At the time of writing only 11 cases were apparently cured, and 9 of these were still wearing trusses. It is their belief, based upon conditions found at operation, that it is extremely difficult to deliver the solution to the exact spot needed to obliterate the sac, and even when the solution does cause a temporary proliferation that obliterates or marks the impulse, this tissue reaction gradually absorbs or diminishes until a state is reached approximately that which existed prior to the injection—resulting in a relapse. Their results were so unsatisfactory that they have definitely decided to abandon this method of treatment.

Dr. Burdick and his associates report on the use of the fascial suture in the repair of hernia. In these cases the incidence of infection was higher than it should have been, and they were

unable to reduce it appreciably. To some extent it was explained by failure on their part to employ the same meticulous technic as did Dr. Gallie. In many patients that were re-operated upon, slight evidence of the fascia used could be found, and they were forced to conclude that many of these sutures were eventually absorbed—contrary to the results of experiments reported by Gallie and Le-Mesurier. There were two deaths from hemorrhage. In one case the deep epigastric artery was injured, and the hemorrhage not noticed until the sac on the other side was opened; in the other the femoral vein was injured, and though the vein was ligated, the patient died from shock. These two deaths emphasize the danger of using the large needle.

In 975 following operations there were 284 or 29.1% recurrences. Of these, 107 developed in less than one year, and 177 in more than one year. The percentage of recurrence was distinctly higher in cases in whom ox fascia was used. For the past two years these authors have been using the silk technic, except in a few unusually large ventral herniae, in which they use a pedicled fascial flap. Except in the type of cases just referred to, they believe that they can give the patient a better chance of a permanent cure with silk than with fascia.

Dr. William Barclay Parsons reports on a large series of cases of hernia repair at the Presbyterian Hospital in New York. In 1930 they adopted the silk technic, whereas theretofore they had used chromic catgut. With catgut there was 12.7% recurrence in 244 cases; with silk 3.5% recurrence in 458 cases. The author thinks that these statistics definitely prove the superiority of the silk technic over the use of chromic catgut. He emphasizes that the silk technic is not merely the substitution of silk for catgut, but it is the careful following of the operative technic promulgated by Halsted, namely delicacy in manipulation of tissues, sharp dissection, use of fine silk, and leaving behind of the minimal amount of the least irritating material.

PATHOLOGICAL CONFERENCE, MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

Case of Dr. Cannon

ABSTRACT NO. 344 (39278)

October 1, 1937

Student McBrearty (presenting abstract):

A 26 year old Negro male, odd job laborer, admitted March 14, died May 2.

History: Onset of illness 1 month before admission with cough, cold, fever; a doctor said he had "flu." Dyspnoea followed this and became gradually worse, with orthopnoea. About the same time, pain "under the heart" developed, and pain in the back "from sitting up too much." About 1 week later face became puffy. Chronic cough has persisted since onset of illness, and has spat blood several times. Gradually became worse for the two weeks before hospital admission, although facial puffiness became less. Never any swelling of ankles. Nose-bleed two weeks before admission. Had Neisserian infection, but denied lues. Had "cramp" in right wrist, lasting 1 week, 5 yrs. ago. Drank 1-2 pts. whiskey per week.

Examination: Well nourished negro, quite ill. Temp. 96.4, pulse 124, resp. 40, B. P. 208/85 (about equal in two arms). Pupils round, fail to reach to light, react well in accommodation. Ears, nose, mouth neg. Thyroid not palpable. Visible pulsations in both sides of neck and in suprasternal notch. No tracheal tug. Chest expansion good and equal; few fine rales in bases of lungs, no other abnormal findings. Mediastinum widened to percussion. Heart: Apical impulse in 5th interspace, $4\frac{1}{2}$ " from mid-line. Marked precordial pulsation, palpable thrill over whole precordium. To-and-fro murmurs over mitral and aortic areas; aortic murmurs transmitted down left border of sternum. Fine papular rash over abdomen, no organs or masses felt; tympanitic. Both tibiae bowed forward and outward. No edema of extremities.

Lab: Urine (4 exams) Sp. Gr. 1.038-1.024; alb. 3-4 plus; sugar and acetone neg; casts not noted on 1st 2 exams, 2-3 plus on last 2 exams leuk. 8-25 per HPF; RBC 0; urobilin 2-4 plus. Blood (3 exams) Hb. 65%; RBC 3.8 mill.; WBC 7,450 on 1st exam. 29,100 on 4-30; polys 73% on 1st exam. 96% on 4-30; cell volume 49% (uncorrected). Sedimentation rate (4/21) 35 mm. in 1 hr. Blood Kolmer and Kline neg. (2 exams). Urea N. 25 on 3/15, 20 on 4/19; total serum proteins (4/22) 5.76 gms. serum alb. 1.89 gms. serum glob. 3.12 gms. EKG (3-16) marked left axis deviation, T-waves positive all leads, occasional premature ventricular contraction. X-ray of chest (3/30).

Course: Temp. generally normal or subnormal, elevated to 104.2 on 4-28, with afternoon rise on 2 following days, subnormal on last two days. Pulse generally 90-120, always above temp. on chart. Resp. generally 24-36, slightly elevated for last few days. Pain, sleeplessness, and dyspnoea continued despite digitalis and sedatives. Cough persisted, with occasional blood-tinged sputum. No changes in heart sounds noted after admission. Palpitation very annoying at times. Developed generalized anasarca a few days before death. On 4-28 basal rales were increased, but "chest shows no signs of pneumonia." On 4-30 coughed up black, bloody, mucoid sputum and complained of pain in both shoulders. BP tended to fall towards the end (about 180/80). Dyspnoea became more severe and patient died on 5-2.

Da. Cannon (conducting): Mr. Gressette, will you open the discussion?

Student Gressette: This young negro male has a diastolic murmur over the aortic area, a widened mediastinum and a large pulse pressure. The blood Kolmer and Kline are negative, but I understand that he had received several "shots," altho that was apparently not recorded on the chart. Those "shots" may or may not have been for lues. The symptoms which have been interpreted as "flu," when there was some blood-tinged expectoration, may well have been the onset of congestive failure. The puffiness of the eyes and the urinary findings are suggestive of nephritis, but do not necessarily prove it, since they may be part of congestive failure.

I think this man had an aortic insufficiency of luetic origin, and that he died of congestive failure and pneumonia.

Dr. Cannon: Do you think that a "few shots" are sufficient to make the Blood Kolmer and Kline negative in a case of cardio-vascular syphilis?

Student Gressette: I think that it is possible that they have that effect.

Dr. Cannon: Don't you think it is worth while to consider some other background for the illness?

Student Gressette: I don't think it necessary to go much further. Possible endocarditis may have been a background for the aortic insufficiency. As for nephritis, the urinary findings might fit either an acute or chronic stage. If it were an acute nephritis, I would expect some red blood cells in the urine. The lowering of the total serum protein and the reversal of the albumin globulin ratio tend to suggest glomerulonephritis rather than effects on the kidney from the congestive heart failure.

Dr. Cannon: How do you explain the heart pain?

Student Gressette: The pain is probably a mani-

fastation of heart failure, and indicates ventricular strain.

Dr. Cannon: How does the increased sedimentation rate fit in?

Student Gressette: It may be a result of the disturbance of the blood plasma as illustrated by the lowered plasma proteins. I don't think that it can be explained on the basis of late syphilitic infection.

Dr. Cannon: You believe that the patient had syphilis of the aortic valve with insufficiency and died of congestive heart failure and pneumonia.

Mr. Mathias, what do you make of the case?

Student Mathias: I think the case is mainly one of syphilis of the aortic valve with insufficiency, but I think that there many have been some narrowing of the coronary ostia to bring on the rather rapid heart failure.

I think that rheumatic infection must also be considered, since it can also give aortic insufficiency. That usually gives stenosis as well as insufficiency, and with stenosis such a high pulse pressure as we have here would be unlikely.

I believe that the kidney findings indicate an actual glomerulonephritis, following on the respiratory infection. The drain of the albumin from the circulation which occurs in glomerulonephritis may well explain the reversal of the albuminglobulin ratio and the lowering of the serum protein.

I believe that the pain under the heart was a touch of pleurisy, and that the bloody mucoid sputum indicated chronic passive congestion of the lungs.

Dr. Cannon: Just what sort of a heart lesion do you visualize to give a to-and-fro murmur at the aortic and mitral areas?

Student Mathias: I think the lesion is aortic insufficiency. Both systolic and diastolic murmurs at the mitral area are not uncommon in aortic insufficiency.

Dr. Cannon: You don't think that leutic infection is apt to cause disease of the mitral valve?

Student Mathias: I have heard that syphilis can affect the mitral valve, but it must be very rare.

Dr. Cannon: Mr. Hembree, what do you think of this case?

Student Hembree: I agree with syphilitic aortitis and aortic insufficiency, with dilatation of the aortic ring as well, as the background for the murmurs. The heart was considerably enlarged, and I think that the mitral murmurs were probably a result of dilatation of the mitral ring.

I think that the Wassermann could easily be negative, in this the tertiary stage of syphilis; I don't know whether a few shots could make it negative, however.

Dr. Cannon: How do you exclude rheumatic infection?

Student Hembree: I can't really exclude it. The cramp in the wrist may have been a manifestation of rheumatic fever. He is a relatively young man for syphilitic heart disease. And of course aortic insufficiency may result from rheumatic infection,

either with or without mitral valve disease. In the light of the many murmurs heard, one could not say, too, that there was no disease of the mitral valve.

Dr. Cannon: What do you make of this X-ray of the chest? (demonstrating film)

Student Hembree: The heart appears to be enlarged, and the aorta is widened, but there is nothing remarkable that I can see there.

Dr. Cannon; Dr. Kelly, do you care to discuss the case?

Dr. W. H. Kelly: The age of this patient is somewhat against leutic valvular disease, as that usually develops ten or more years after the primary infection. Of course there are exceptions. I think that this man has hypertension, however, and that might well explain the dilatation of the aorta which we can see on the X-ray. The reversed albumin and globulin ratio in the serum may well be merely the result of the congestive failure.

Dr. Lynch: We have here a case of aortic insufficiency which is not based on syphilis. In this part of the country, aortic insufficiency is frequently considered as almost pathognomonic of syphilis, because of the rarity of rheumatic infection here. On that account, if I had to analyze this case clinically, I believe I would have diagnosed syphilitic heart disease in spite of the negative Kolmer and Kline, although I have a great deal of faith in those tests.

This man had hypertensive cardio-vascular disease. Dr. Kelly is the only one who has discussed this case that noted that. In simple aortic insufficiency of leutic origin, the pulse pressure becomes great because the diastolic pressure falls markedly, and the systolic pressure rises. In this case the diastolic pressure remained about normal, which suggests that before the development of insufficiency of the aortic valve it was much higher.

There was no syphilis of the aorta, but there were two transverse ruptures of the inner components of the aortic wall, just above the commissures of the aortic valve, which would result in a dropping downward of the valve cusps during diastole, and an insufficiency. As a background for this tearing of the aorta, there is a rather remarkable necrosis of the aortic media, quite localized to the region of the tears. (Demonstrating microscopic slides). Here you can see the aorta in the region of the intimal tears which brought about insufficiency. The media is remarkably disrupted, the elastic tissue being particularly affected. Here and there are small collections of collagenous material, surrounded by large round cells which are quite suggestive of the Aschoff bodies of rheumatism. There is also marked fibrosis of the myocardium, again without definite Aschoff bodies, but in excess of what we usually see in hypertension unless the coronary arteries are affected (and they were not appreciably affected in this case).

This combination of fibrosis of the myocardium,

and peculiar cellular collections in the aorta make rheumatism a strong possibility, but in the absence of valvular lesions of rheumatic character it is impossible to make that diagnosis definitely. One must remember, too, that the sections we are showing you from the aorta are taken after the tear occurred,

and healing has begun to take place; they may be merely an unusual appearance in the healing aorta.

Dr. Kelly: Was this a fresh tear? And was there any dissection?

Dr. Lynch: No, the tear was not fresh, and there was no appreciable dissection.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

ADVISORY COUNCIL

Dr. E. A. Hines, Chairman	Seneca, S. C.
Dr. F. M. Routh	Columbia, S. C.
Dr. T. R. W. Wilson	Greenville, S. C.
Dr. J. Fred Crow	Spartanburg, S. C.
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District No. 6, Mrs. D. O. Winter	Sumter, S. C.

JANE TODD CRAWFORD

(Excerpts from sketch written by Mrs. T. R. W. Wilson, Greenville, S. C.)

Jane Todd Crawford, the courageous patient, and Ephraim McDowell, the surgeon! These two great names are inseparable, for their lives were linked in the most heroic event of a period of medical experiments.

Mrs. Crawford was born in Rockbridge County, Virginia, December 23, 1763. There is very little known of her parentage. Her father, Samuel Todd, was sheriff of Botetourt County, Virginia. Jane was second eldest of six daughters and two sons, all of whom married and moved across the mountains to Kentucky. Jane and Sarah, a younger sister, migrated to Indiana about 1817.

Jane was married to Thomas Crawford,

January 9, 1794, by the Rev. Sam Houston. Eleven years later they moved to Kentucky and settled near Greensburg, the county seat of Green County. Here five children were born to the Crawfords—all before the eventful operation. No children were born after the operation. The records show the children were like their parents, respected citizens. The oldest son became a minister and served the Presbyterian Church at Graysville, Indiana. Jane Crawford spent her last years with him. She died in 1842 at the age of 79—thirty two years after the operation. Her tombstone is standing four miles from the village in Johnson Cemetery. Her youngest son, Thomas, was Mayor of Louisville, 1856-60. When Jane Crawford was 46 years old she believed herself to be pregnant. Two physicians, puzzled by her peculiar illness, called a young practitioner, Dr. Ephraim McDowell, into consultation. After a thorough examination, Dr. McDowell told Mrs. Crawford that her only hope for relief was the excision of an ovarian tumor. He told her he was ready to risk his reputation and perform an experiment if she were willing. Mrs. Crawford told him she was willing to submit to his judgment. Mrs. Crawford traveled on horseback, her abdomen suffering injury from the pommel of the saddle, 60 miles to Danville, Dr. McDowell's residence, for the operation. Dr. McDowell, assisted by his nephew, James McDowell, prepared for the operation. Mrs. Crawford was placed on a crude table, dressed in her usual attire when the incision was made in the abdomen and 15 pounds of a "dirty gelatinous looking substance" was removed from the ovary. Then the sac, which weighed 7½ pounds, was extracted from the Fallopian tube. "As soon as the external opening was

made, the intestines rushed out upon the table, and so completely was the abdomen filled by the tumor that they could not be replaced during the operation," which lasted about 25 minutes. After the operation Mrs. Crawford was put to bed. Five days later, Dr. Dowell visited her and was astonished to find her making her bed. In 25 days she returned to her home in good health and lived 32 years longer. The operation was performed before the discovery of an anesthetic. Nothing was known to deaden the senses of that brave woman. It is said that her courage and faith were shown by her repetition of the Psalms during the operation, while men held down her arms and legs to restrain the involuntary muscles as the surgeons worked.

Do we realize our indebtedness to Jane Todd Crawford? Will we let the memory of this noble woman die, or will we flaunt her valor before our children and our children's children with the Jane Todd Crawford Memorial? We establish memorials for our war heroes, our political statesmen, or inventors, but what have we done in memory of a courageous woman whose facing death has meant life for many of our loved ones? . . . Dr. McDowell performed many abdominal operations after Mrs. Crawford's without losing a patient. He died in 1830 from "inflammatory fever," which was probably appendicitis. A stately granite monument has been erected to Dr. McDowell in recognition of his worth to medicine . . . For Jane Todd Crawford? When the monument was dedicated to the memory of Dr. McDowell, Dr. S. D. Gross of Philadelphia said, "All honor to the heroic woman who with death staring her in the face, was the first to submit calmly and resignedly to what certainly was at the time a surgical experiment. To her, too, let a monument be erected, not by the Kentucky State Medical Society or by the citizens of Kentucky but by the suffering women who with her example before them have been the recipients of the inestimable boon of ovariectomy with a new lease of their lives and with immunity from subsequent distress.

I know of no greater example in all history of heroism than that displayed by this noble woman in submitting to an untried operation." This statement was made 58 years ago, and the glory of Mrs. Crawford is still unhailed. In 1928 the first definite step was taken to create a Jane Todd Crawford Memorial Fund at the annual meeting of the Woman's Auxiliary of the Kentucky State Medical Association. What a thrill comes to any woman as she is called to a noble task knowing in her heart that she is *ready*! We *are* ready. How should we do it? Your Chairman is convinced of the great necessity of a definite plan to honor this great pioneer woman.

JANE TODD CRAWFORD MEMORIAL BED IN COLUMBIA HOSPITAL

At the mid-year meeting of the Executive Board Committee of the Woman's Auxiliary to the South Carolina Medical Association the Board decided to place a bed in the Columbia Hospital, Columbia, S. C., for indigent women, to be known as the "Jane Todd Crawford Memorial Bed."

COLUMBIA MEDICAL AUXILIARY MEETING

An interesting meeting of the Columbia Medical Auxiliary was held at the home of Mrs. Earle Boozer, Tuesday morning, November 2, with about 50 present. The President, Mrs. Emmett Madden, presided. Reports from the various chairmen were given and plans for the year discussed.

After the business program, a social hour was enjoyed, during which delightful refreshments were served by the following assistant hostesses: Mrs. B. D. Caughman, Mrs. Kirby Shealy, Mrs. M. Mostellar, Mrs. I'on Weston, Mrs. Charles Epting, Mrs. P. V. Mikell, Mrs. Benjamin Rubinowitz, Mrs. James B. Watson, Mrs. C. E. Oxner, and Mrs. Herbert Dove.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

QUERIES AND ANSWERS

Query: What are the signs of placental separation? X. Y. Z.

Answer: The first evidence of placental separation is a trickle of blood from the vagina. This is followed by an upward movement of the uterine fundus, so that it comes to lie at, or more usually somewhat above, the umbilicus. The fundus becomes globular, firm, and somewhat flattened above, so that someone has described it as button-like. This is in contrast to the shape of the fundus before placental separation, where it is wide and rather flattened from before backward.

The position of the placenta in the lower uterine segment causes a fullness above the symphysis, which is easily seen if the bladder is empty and the patient not too fat.

Query: Is it good practice to administer ergot or pituitrin in labor before the expulsion of the placenta? X. Y. Z.

Answer: Whether or not it is a safe procedure to administer either pituitrin or ergot before the end of the third stage of labor depends upon one important factor; namely, whether or not the doctor is able to recognize when separation of the placenta has occurred and whether he stands ready to promptly bring about its expulsion by simple manual expression. Placental separation occurs in the majority of cases within the first five minutes after expulsion of the child, and is largely or wholly produced by uterine retraction and contraction. However, after separation, the placenta moves wholly or largely down into the lower uterine segment. Pituitrin causes tetanic contraction

of the uterine fundus, and as the placenta does not wholly lie below the fundus, a portion of it may be grasped by the fundal muscle and imprisoned, making early expulsion difficult or impossible. However, as soon as separation has occurred and the placenta is expelled by simple manual expression, such grasping can not occur.

Query: How does one differentiate between placenta accreta and simple retained placenta? X. Y. Z.

Answer: The differentiation between placenta accreta and retained unseparated placenta is not possible without intrauterine examination. Retained separation placenta is more easily differentiated from placenta accreta. In case the placenta has separated, the signs of placental separation will be present. There will be a history of some uterine bleeding, and of lengthening of the portion of umbilical cord hanging out of the vagina. If the cord is gently tugged upon, the impulse will not be transmitted to the fundus as it will if the placenta is still attached.

In the case of nonseparation of the placenta, after a wait of two hours, the hand should be carried into the uterus, using careful asepsis, and an effort made to strip the placenta from its attachment to the uterine wall. Ordinarily a cleavage plane will be found easily. If difficulty is encountered, no such plane of cleavage being found, necessitating a tearing away of the placenta, further efforts at removal should be discontinued. It is then advisable to diagnose the condition as placenta accreta, and subject the woman to hysterectomy.

ORTHOPEDIC SURGERY

AUSTIN T. MOORE, M. D., COLUMBIA, S. C.

THE USE OF INTERNAL FIXATION IN TREATING FRACTURED BONES

In the last issue of the Journal we discussed skeletal traction. The subject of skeletal fixation for this month seems a fitting sequel.

There has been a great deal of controversy in the past quarter of a century regarding this subject. Following the visit of Sir Arbuthnot Lane, at which time he read his epoch-making address on bone plating, a wave of enthusiasm for the internal fixation of fractures swept this country. The Lane "no-touch technique" was described and recommended, and beautiful results were reported. Dr. Charles Scudder at that time warned the profession that there would be many disasters as a result of unskilled surgeons attempting to do this very difficult technical procedure. This prediction proved to be true. Many broken bones were plated with the result that there were many cases of operative infection, delayed infection, loose fixation, nonunion and various other types of complications. Many of us have seen patients with osteomyelitis, numerous discharging sinuses, adjacent joint infection, stiffened joints, withered limbs, general debility from prolonged sepsis, and other serious sequelae of the improper use of internal fixation. Illnesses have been greatly prolonged, limbs have been sacrificed by amputation, and lives have been lost as the result of poorly planned surgery in fracture cases.

So, as time went on and more and more reported bad result cases found their way into the literature surgeons realized more and more the seriousness of open reduction and internal fixation. There were many more factors to consider than the simple mechanical ability to cut down on fragments and fasten the bones together. The age of the patient, general physical condition, risk of surgery, operative approach, shock of operation, condition of the part at the time of operation, preliminary preparation, time for operation, etc., all had to be considered. Besides this, one must be technically skillful, have capable and trained assistants,

have access to the necessary surgical armamentarium, and work in an institution where asepsis and operating room technique is controlled as perfectly as possible. Surgeons without the advantages of all these prerequisites and without the natural ability to do good aseptic surgery soon learned to their sorrow, and sometimes horror, that open reduction of fractures could not be undertaken lightly. The wave of enthusiasm began to die, momentum was lost, and the pendulum began to swing in the opposite direction.

The fault was not considered to be in the operative procedure itself, but blame was laid to the type of internal fixation. Instead of the original Lane plate, another type of plate was used. Wire of various metals was recommended. Ivory, beef bone, cow horn, and other materials have been introduced with the idea that instead of remaining as a foreign body it would be slowly absorbed. Kangaroo tendon, heavy cat gut, and braided silk was used as suture material rather than non-absorbable silver wire. Ordinary stove pipe or iron wire has been recommended because of the fact that it would be slowly absorbed in time. The autogenous bone graft was introduced and possessed the especial advantage that the fixing material actually grew into and became a part of the recipient bone. But all grafts did not work. It was found that there is a tremendous difference between medullary grafts, inlay grafts, and onlay grafts. Also there developed the question of osteoperiosteal grafts and chip grafts and whether or not rigid fixation is necessary for proper healing in grafted cases. More recently stainless steel has been introduced, and its property of being non-corrosive and non-irritating has been recommended. One may purchase stainless steel wire which is very strong but very pliable and non-elastic.

Still there existed danger of internal fixation, and various pins and screws have been introduced to take the place of plates. In many instances special nails, screws, bolts, or pins have their advantages. This is particularly true

in hip, olecranon, and condyle fractures.

The pendulum of opinion continued to swing away from internal fixation with plates to the extreme opposite position. Surgeons have boasted of their conservative treatment of fractures, their policy of taking care of almost all fractures by the closed reduction method, and the fact that they have not used a bone plate in years. These same men have seen their bad results develop and have seen the need of open reduction in certain cases. The pendulum has more recently begun to swing again toward the operative treatment, and I feel that we are nearing the middle ground and more proper attitude for obtaining best results over a long period of time. Skeletal traction and pin fixation in plaster with pins above and below the site of fracture has been used frequently. The fracture may or may not need incision to secure proper reduction. Non-union or delayed union has frequently followed this procedure and is due to imperfect coaptation with imperfect immobilization of fragments. Fragments may easily be held apart by pin fixation incorporated in plaster.

One cannot expect to obtain perfect results in any field of endeavor; so in the treatments of fractures there will always be some unfortunate outcomes. The middle ground is probably the safest ground. Most cases can and should be handled conservatively by closed methods. It is unquestionably a big mistake to have a routine way of handling any type of fracture, and especially to make it routine to do an open reduction on certain classified fractures. Every fracture case should be individualized. Some will need an open reduction to obtain maximum result with minimum

loss of time, suffering, and expense. This should be objective in each instance. There are good methods and faulty ones, but frequently the fault lies in the hands of the surgeon. The operator is more frequently wrong than is the operation.

A particular method should not be condemned because one surgeon may not find it successful in his own hands. The best method is the one that gives the best results in the hands of that particular surgeon. That most cases can be handled by closed reduction or by some of the simpler methods of fixation is unquestionable. However, in some fractures a bad result is certain unless there is perfect reposition of fragments and complete immobilization by internal fixation. Sherman and Wagner, of Pittsburgh, have done a great many open reductions with internal fixation by means of the Sherman plate or with screws. In a personal interview I was told that they had only had one case of operative bone infection in a clean case in the past twenty years. That is a record to be proud of and one that proves the treatment safe if used properly. It is my opinion that when internal fixation is necessary, it should unhesitatingly be used under the proper precautions. The type of fixation should be strong and one which will hold the fragments perfectly immobilized in good position. If the fixing material is buried deep under muscle, if it is firmly fixed in place and there is no sign of local inflammation, local irritation, or of bone absorption, then it may remain in situ indefinitely. Routine removal of modern internal fixation material has no place in the treatment of fractures.

SOCIETY REPORTS

COASTAL MEDICAL SOCIETY MEETING

The Coastal Medical Society met September 16, 1937, at St. George, S. C. The meeting was called to order by the President and the minutes of the previous meeting read and approved. In order to increase our attendance and interest in the meetings, and to discuss certain business items, Dr. Stokes wrote a personal letter to physicians in the coastal territory, urging them to attend. Because of this we had a very good attendance.

It was suggested by several members that I read the following statement regarding dues. Yemassee, S. C., July 20: Due to the past financial record of the society, a motion was made by Dr. Richard Johnston that we assess each member \$10.00 per year. This to include dues, pay for dinners, etc. Following a discussion this was unanimously approved.

Due to the fact that so few of our county medical societies are active and that a larger organization would give more enthusiastic meetings with more profitable programs, Dr. Stokes suggested the advisability of chartering our Coastal Medical Society and discontinuing our county medical societies. This was thoroughly discussed. After referring to the By-Laws of the S. C. Medical Association and being advised by the State Board of Councilors that our representation in the State Medical Association would remain the same; and that each county would be free to withdraw at any time, if they so desired, and reorganize independently, Dr. Stokes asked that we give the matter thorough consideration at our county meeting so that we could continue the discussion and probably reach some conclusion at our next meeting.

Resolutions of sympathy in memory of our beloved friend and brother physician, the late Dr. P. M. Judy, were read by Dr. J. B. Johnston. Dr. Johnston made a motion that a copy of the same be sent to the family and to the S. C. Medical Journal for publication. This motion was seconded and approved.

Dr. Tupper extended an invitation to the Society to come to Summerville for our next meeting, on October 25, which was accepted.

Following the business discussion, a very interesting motion picture on forceps delivery was enjoyed by all. The meeting adjourned, followed by dinner at Bird's Hotel.

Respectfully submitted,
A. Richard Johnston, Secretary

COASTAL MEDICAL SOCIETY *In Memoriam*

Whereas it has pleased our Father in his infinite wisdom to call to his heavenly home our beloved friend and brother physician, Dr. P. M. Judy, of St. George, S. C.

Be it resolved, That we, the members of the Coastal Medical Association, express our sincere grief at his passing;

That, while we are deeply grieved, we rejoice that his character and life were such as to give inspiration to all those who came in contact with him;

That his Christian influence and unselfish devotion to his profession, his friends, and his family, inspire us to live fuller and richer lives. He will be greatly missed from our meetings;

That we extend to the bereaved family our deepest sympathy and pray God's blessings to comfort them in their great sorrow;

That a page in the minutes of our Association be dedicated to his memory and a copy of these resolutions be sent to the family, and published in the South Carolina Medical Journal.

L. M. Stokes, M. D.

J. B. Johnston, M. D.

A. Richard Johnston, M. D.

MINUTES OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, TUESDAY EVENING, OCTOBER 12TH, 1937 AT 8:30 O'CLOCK AT ROPER HOSPITAL

The meeting was called to order by the President, Dr. W. A. Smith. Thirty seven members and the following guests were present: Drs. Kredel, Kelley, Cockrill, Boone, G. D. Johnson, Kalayjian and Kinard, of the Medical College; Dr. H. C. Robertson, Dr. Wingate M.

Johnson of Winston-Salem, N. C. The minutes of the meeting of June 22nd, 1937, were read and approved.

Letters of application for membership from Drs. R. J. Baker and Geo. D. Johnson were read, and were referred by the President to the Board of Censors.

The Society then voted upon the name of Dr. Henry C. Robertson, Jr., who was unanimously elected to membership.

Dr. Robert Wilson, Jr., reported briefly upon the status of the Credit Bureau.

Dr. W. Atmar Smith then read the Report of the Alston Bequest and certain letters from Mr. M. Rutledge Rivers. Dr. Lynch made a motion that Mr. Rivers' opinion be accepted, and later withdrew this motion after considerable comment by Dr. Mood and Dr. Buist, who disagree with Mr. Rivers. Dr. Buist moved that the Report be received as information and not adopted. This motion was passed.

Dr. L. A. Wilson made an announcement to the Society that he had discontinued his private practice.

Dr. A. E. Baker stated that the Kiwanis Club of Charleston was desirous of presenting a respirator which would be available in any of the hospitals or in private homes. Dr. Buist made a motion that the Society commend the offer of the Kiwanis Club and that the offer be accepted. The President requested Dr. Baker to inform the Club of this action.

The Secretary read a letter from the South Carolina State Nurses Association concerning the change from 12-hour to 8-hour duty. This was received as information.

Dr. Lynch then introduced Dr. Wingate M. Johnson, of Winston-Salem, N. C., who delivered an interesting address on the subject, "The Physician in Literature."

Thereafter the President expressed the thanks of the Society to its guest, and the meeting adjourned.

Respectfully submitted,

J. I. Waring, M. D., Secretary

RIDGE MEDICAL SOCIETY MEETING

The Ridge Medical Society met the eighteenth of October, 1937, at seven thirty o'clock, p. m. with a fair attendance.

Dr. Wise reported a case of a white man who was severely burned as a result of attempting to remove a ground wire from an electric line post.

Dr. Brunson reported a case of rheumatism which was apparently cured by taking sulfanilamide.

Dr. E. P. Taylor presented a eulogy on Dr. D. B. Frontis which was unanimously adopted, a copy of which appears in another part of the Journal of the S. C. Medical Association.

Dr. W. M. Bennett, of Ruffin, read an interesting and instructive paper on peptic ulcer. Dr. C. Brown, of Walterboro, also read an instructive paper on peptic ulcer and exhibited a number of X-ray pictures which illustrated various types and sizes and their locations. Both of these papers were highly enjoyed and approved.

Supper was served in the Rutland Hotel. Reverend Mr. Westervelt, who is operating a school for children of missionaries at Summerland College, was our guest for supper and made a short talk about his work, etc.

The Ladies Auxiliary met with Mrs. A. L. Ballinger and had an interesting and enjoyable meeting.

W. P. Timmerman, M. D., Secretary

MINUTES OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, TUESDAY EVENING, OCTOBER 26TH, 1937, AT 8:30 O'CLOCK AT ROPER HOSPITAL

The meeting was called to order by the President, Dr. W. Atmar Smith. Thirty six members and the following guests were present: Dr. E. L. Bishop, of Atlanta; Dr. J. H. Hoch, Drs. Kinard, Kelley, Cockrell, C. D. Johnson, and Kalayjian, of the Medical College. The Minutes of the meeting of October 12th were read and approved.

A letter of application for membership in the Society from Dr. John A. Boone was read and referred to the Board of Censors.

A letter was read from the Secretary of the Durham-Orange County Medical Society (of North Carolina) stating that Dr. W. H. Kelley was a member in good standing, whereupon

Dr. Kelley was unanimously elected a member of this Society.

The Board of Censors reported favorably on Drs. Robert J. Baker and George D. Johnson, who were also unanimously elected to membership.

Dr. Robert Wilson made a report on the approaching Founders Day celebration at the Medical College.

The Secretary read a letter from Mr. J. D. Saumenib, Manager of the Radio Station W C S C, asking if the Society would underwrite a series of weekly health talks. This was discussed by Dr. John F. Townsend and Dr. Beach, and a motion was passed that the Society undertake the suggested program. The Chair appointed a committee consisting of Dr. Peery, as Chairman, Dr. Chamberlain, and Dr. J. M. Van de Erve.

SCIENTIFIC PROGRAM

The President then introduced Dr. E. L. Bishop, of Atlanta.

The first paper on the program was presented by Dr. Thomas M. Peery on "The Present Day Treatment of Carcinoma of the Cervix."

Then the paper, illustrated with lantern slides, was given by Dr. Bishop on the subject, "Some Phases of the Cancer Problem."

These papers were discussed by Dr. Lynch.

The President then thanked the guest speaker for his contribution, and the Society adjourned.

Respectfully submitted,

J. I. Waring, M. D., Secretary

DR. D. B. FRONTIS

IN MEMORIAM

THE RIDGE MEDICAL ASSOCIATION

The members of The Ridge Medical Association desire to go on record as expressing profound sorrow over the death of Dr. D. B.

Frontis, who was for many years a faithful, stimulating, and most helpful member of our group. In fact, he was a charter member and ex-officer and also an honorary member.

We do not attempt to express our sorrow over his loss and our appreciation of his beautiful life in a set of formal resolutions; for Dr. Frontis was far too great a man, in the truest sense of the word, to be summed up in any set of resolutions. A voluminous book would be required even to touch upon his noble virtues as a man and as a physician. His life was a jewel-chest of virtues.

Dr. Frontis was a true Southern gentleman—the noblest and finest type of gentility that the world has produced. He was a great gentleman to his finger-tips and to the center of his heart. He was, indeed, a classic in Southern gentility.

Dr. Frontis was learned in his profession and true to its highest ideals and traditions. Always motivated by an exalted sense of duty and of love, he nobly ministered to his fellows with the utmost skill that he possessed. People loved him; and people do not love a human machine, no matter how efficient that machine may be. While Dr. Frontis was a truly scientific physician, abreast of the times in medical lore, he was vastly more than that. Everywhere that he went on missions of healing and mercy, he carried with him the divinely bestowed gift of the true artist, in graciousness of personality, in tenderness of voice, in winsomeness of manner, in insight, in compassion, in understanding. By whatsoever name it may be called, Dr. Frontis possessed in high degree that beautiful something that declares to all the world that man is made in the image of God.

The earth is a holier place because the faithful feet of Dr. Frontis trod its soil.

E. P. Taylor, For Committee

BOOK REVIEWS

THE MANAGEMENT OF FRACTURES, DISLOCATIONS, AND SPRAINS: By John Albert Key, B. S., M. D., St. Louis, Mo. Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's and Jewish Hospital; and H. Earle Conwell, M. D., F. A. C. S., Birmingham, Alabama, Consulting Orthopedic Surgeon to the Tennessee Coal, Iron & Railroad Company, and the Orthopedic and Traumatic Services of the Employees' Hospital; Associate Orthopedic Surgeon to the American Cast Iron Pipe Company; Attending Orthopedic Surgeon to the Crippled Children's Hospital, St. Vincent's Hospital, South Highlands Hospital, Hillman Hospital, and Children's Hospital, Birmingham, Alabama. Member of the Fracture Committee of the American College of Surgeons, American Academy of Orthopedic Surgeons, and the Advisory Fracture Committee of the American Medical Association. Second Edition. Price \$12.50, St. Louis, The C. V. Mosby Company 1937.

The publication of the first volume met with immediate success, and the present revision has taken care of a rapidly advancing interest in the treatment of fractures of every description both by the general practitioner and by the specialist. This is a volume of twelve hundred and forty six pages. In all such books the illustrations are very necessary in order that the reader may follow the texts in the most intelligent manner. The authors have seen to it that this need is met in a satisfactory manner.

CRIPPLED CHILDREN: THEIR TREATMENT AND ORTHOPEDIC NURSING: By Earl D. McBride, B. S., M. D., F. A. C. S. Assistant Professor of Orthopedic Surgery, University of Oklahoma School of Medicine; Attending Orthopedic Surgeon to St. Anthony Hospital; Associate Orthopedic Surgeon to Oklahoma City General and Wesley Hospitals; Visiting Surgeon to W. J. Bryan School for Crippled Children; Chief of Staff to Reconstruction Hospital, Oklahoma City, Okla.; Member of American Academy of Orthopedic Surgeons. In Collaboration with Winifred R. Sink, A. B., R. N. Educational Director, Grace Hospital School of Nursing, Detroit, Michigan; Formerly Head Nurse of James Whitcomb Riley Hospital of the Indiana University Group; Instructor of Nurses, Indiana University School of Nursing; Educational Director, General Hospital, Mansfield, Ohio. Second Edition. Price \$3.50, St. Louis, The C. V. Mosby Company 1937.

The appeal of crippled children has never been so much in the limelight as it is at the present time, and justly so. This book is particularly in-

tended for the nurse in charge of orthopedic cases. The illustrations are good and the book is up to date.

AN INTRODUCTION TO DERMATOLOGY: By Richard L. Sutton, M. D., Sc. D., LL. D., F. R. S. (Edin.), Professor of Dermatology, University of Kansas School of Medicine, and Richard L. Sutton, Jr., A. M., M. D., L. R. C. P. (Edin.), Instructor in Dermatology, University of Kansas School of Medicine. Third Edition. Price \$5.00. St. Louis, The C. V. Mosby Company, 1937.

This book has enjoyed an extensive revision by an author well known throughout this country. It would appear to be much more than an introduction to the subject in hand for, it is a book of six hundred and sixty six pages with many hundreds of illustrations. In no field of medicine is there a greater challenge for diagnostic ability. In the field of allergy alone the physician meets with many difficult problems, and the field is growing at a tremendous rate. It would seem to be wise for the general practitioner to purchase a new book on Dermatology rather frequently to keep up with the trends in recent years. This book would seem to meet such a need.

PSYCHIATRIC NURSING: By William S. Sadler, M. D., Chief Psychiatrist and Director, The Chicago Institute of Research and Diagnosis; Consulting Psychiatrist to Columbia Hospital, In collaboration with Lena K. Sadler, M. D., Associate Director, The Chicago Institute of Research and Diagnosis; Medical Director, the North Side Rest Home; Attending Physician, Columbia Hospital and the Women and Children's Hospital, and Anna B. Kellogg, R. N., Member American Nurses Association; Chief of Nurses, The Psychiatric Clinic of the Chicago Institute of Research and Diagnosis; Instructor in Psychiatric Nursing, The North Side Rest Home. Price \$2.75. St. Louis, The C. V. Mosby Company, 1937.

The marvelous advances in the care of the mentally sick individual have much to do with the nursing of these patients. The training schools for such nurses have become outstanding in the special type of training they provide. This book is well written and gives a satisfactory back-ground for this type of nursing care.

OBSTETRICS FOR NURSES: (Eleventh Edition) By Joseph B. DeLee, A. M., M. D., Professor of Obstetrics and Gynecology, Emeritus, University of Chicago; Consultant in Obstetrics, Chicago Lying-in

Hospital and Dispensary; Consultant in Obstetrics, Chicago Maternity Center, and Mabel C. Carmon, R. N., Chief Supervisor and Instructor in the Birth-rooms, Chicago Lying-in Hospital and Dispensary. Eleventh Edition, Revised and Reset 659 pages with 292 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$3.00 net.

Any book to run through eleven editions must have merit. This volume has long been a classic. It comes from one of the great centers for obstetric teaching. The illustrations are unusually good; and while it is a book on nursing care in obstetrics, the physician will find in it much in the way of practical suggestions applicable to his practice.

THE BUSINESS SIDE OF MEDICAL PRACTICE: By Theodore Wiprud, Executive Secretary of the Medical Society of Milwaukee County; Lecturer in Medical Economics at the Marquette University School of Medicine. 177 pages with 21 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$2.50 net.

Whether he wishes to be a business man or not in modern times, the physician has been forced to take over much of the customs of the business world in order to live. In other words, the economic pressure on the physician has become of paramount importance. Much has been written about the physician being a poor business man, but that is a debatable point. No other profession or trade for that matter donates so much in the way of services on a free basis as the doctor. It would seem, therefore, that he must be a pretty good business man to live as well as he does when he gives away so much of his time and often of his means. Many books have been written about this phase of medical practice, and in some medical schools lectures are being introduced along this line. This book is the outcome of a considerable opportunity on the part of the author to study the doctor as a business man. The information contained is quite worth-while especially for the young physician. In addition there is a very good resume of practical points for the physician to consider in his many relations to the public.

MANUAL OF CLINICAL AND LABORATORY TECHNIC: By Hiram B. Weiss, A. B., M. D., F. A. C. P., Associate Professor of Medicine, College of Medicine, University of Cincinnati, Cincinnati, Ohio; and Raphael Isaacs, A. M., M. D., F. A. C. P., Associate Professor of Medicine, Assistant Director

of the Thomas Henry Simpson Memorial Institute for Medical Research, University of Michigan, Ann Arbor, Mich. Fifth Edition. Reset. 141 pages. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$1.50 net.

Manuals are serviceable for both the medical student and the practising physician. Some of them are too brief to be of much help and others are too comprehensive. It appears to be difficult to produce a book and avoid these extremes. This volume would seem to have accomplished this purpose very well.

EMOTIONAL ADJUSTMENT IN MARRIAGE: By Le Mon Clark, M. S., M. D., Assistant in Obstetrics and Gynecology, University of Illinois College of Medicine. Price \$3.00. St. Louis. The C. V. Mosby Company. 3525 Pine Blvd. 1937.

The general subject discussed in this book has had much publicity in recent years, too much, in fact, in the public press and by books of all sorts and often without any guidance on the part of the medical profession. It would seem to be desirable that thoroughly trained physicians only be the leaders as contributors to this highly significant function of life. This book has been presented by a specialist and teacher in one of our well known schools of medicine.

THE TRAFFIC IN HEALTH: By Charles Solomon, M. D., Assistant Clinical Professor of Medicine, Long Island College of Medicine; Lecturer in Materia Medica, Training School for Nurses, Jewish Hospital of Brooklyn, author of Pharmacology, Materia Medica and Therapeutics, Prescription Writing and Formulary, The Art of Prescribing. Price \$2.75. Navarre Publishing Company, Inc., 10 East 43rd Street, New York City.

The colossal sums of money spent in the domain of which this book treats is amazing. Part of this situation comes, of course, from the great power of advertising. This book brings together in one place an epitome of most of the available information extant at the present time about these matters. It seems reasonable that such information should go far towards creating a stop and look sentiment on the part of the American people. This country has just been through with a tragic experience resulting from the freedom with which powerful drugs are dispensed and even purchased over the counter by the layman without scientific approval.

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With Chapters on Special Subjects By H. C. Anderson, M. D.; Ursulla Brunner, R. N.; J. B. Cowherd, M. D.; Paul Gempel, M. D.; H. P. Kuhn, M. D.; Carl O. Rickter, M. D.; F. C. Neff, M. D.; E. H. Skinner, M. D.; E. R. DeWeese, M. D.; and O. R. Withers, M. D. Sixth Edition, Price \$10.00, St. Louis. The C. V. Mosby Company 1937.

The specialties have so divided up medicine and surgery that it is impossible now to publish a comprehensive volume on the practice of medicine. This popular author, however, presents a very good book that embodies a great deal in the way of practical advice for the general practitioner. One of the most interesting sections is at the beginning of the book under the head of drugs. The practitioner is forced to keep in touch with ways and means for relieving his patients, and such relief frequently includes drugs. This section comprises about one fourth of the book and is therefore an important feature. Other sections, of course, deal with not only the drug treatment of disease but diet, hygiene, etc.

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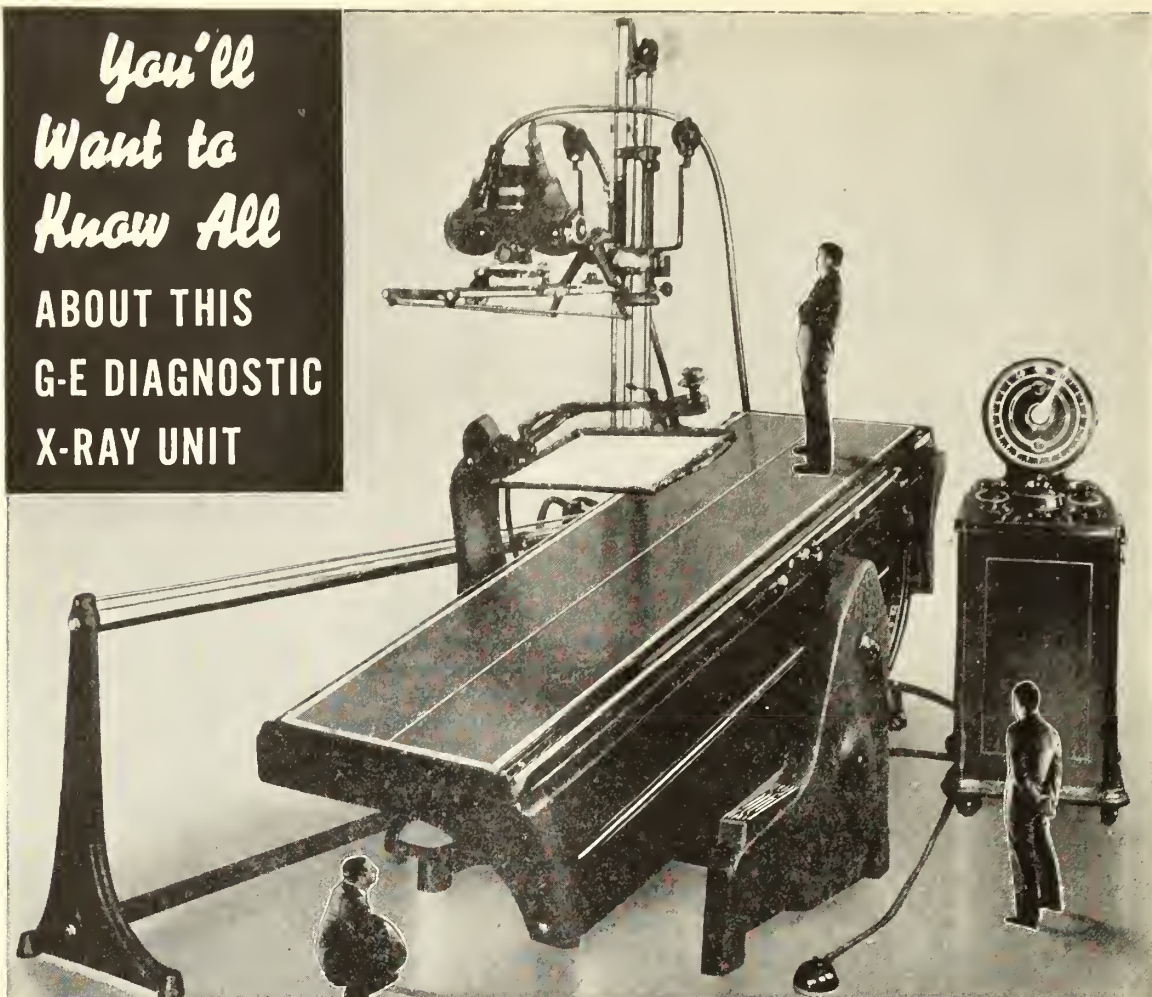
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VOL. XXXIII.

GREENVILLE, S. C., FEBRUARY, 1937

NO. 2

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References: Kugelmass, Clinical Nutrition in Infancy and Childhood, Lippincott; Marriott, Infant Nutrition, Mosby; McClean & Fales, Scientific Feeding in Infancy, Lea & Febiger.

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*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923.

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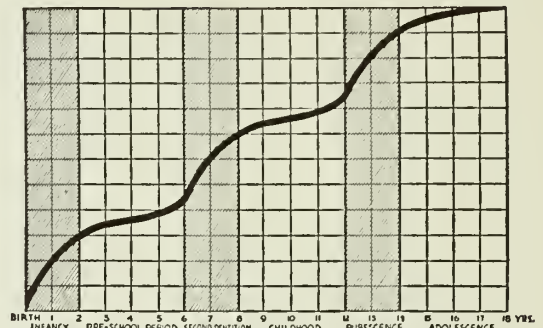
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GREENVILLE, S. C., APRIL, 1937

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Nutritional Anemia in Infants

THE iron stored in the infant's liver at birth is rapidly depleted during the first months of life (Mackay,¹ Elvehjem²). During this period the infant's diet contains very little iron—1.44 mg. per day from the average bottle formulae of 20 ounces, or possibly 1.7 mg. per day from 28 ounces of breast milk (Holt³). For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,⁴ Galloway⁵), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month (Blatt,⁶ Glazier,⁷ Lynch⁸).

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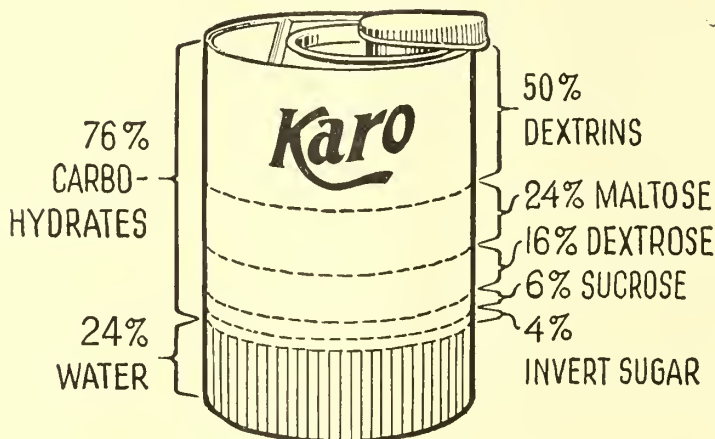
Pablum (Mead's Cereol thoroughly cooked and dried) consists of wheatmeal, oatmeal, cornmeal, wheat embryo, brewers' yeast, alfalfa leaf, beef bone, iron salt and sodium chloride.

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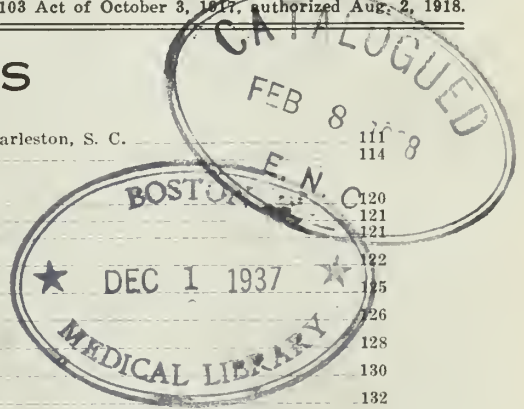
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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

**If you have a large incidence of loose stools
in your pediatric practice —**

TRY CHANGING TO A DEXTRI-MALTOSE FORMULA

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★ Karo Syrup contains **twice** as many calories as ...



Maltose - Dextrins — Dextrose powdered
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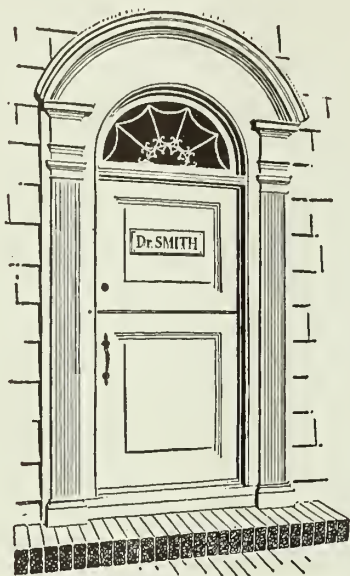
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the private
doctor's
office

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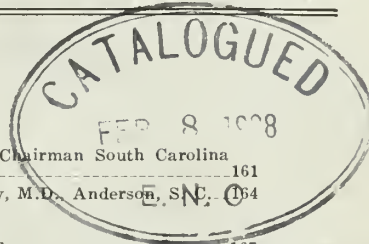
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DIARRHEA

*"the commonest ailment of infants
in the summer months"*

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

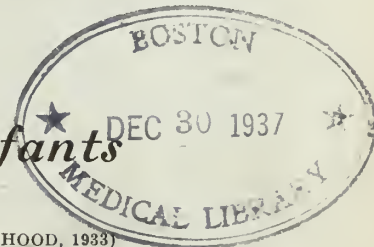
One of the outstanding features of DEXTRI-MALTOSE is its low fermentability and consequent preference in management of infantile diarrhea.

SERIOUSNESS OF DIARRHEA—There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year" Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Little states (Canad. Med. A. J. 13:803, 1923), "There are cases on record where death has taken place within 24 hours of the time of onset of the first symptoms."

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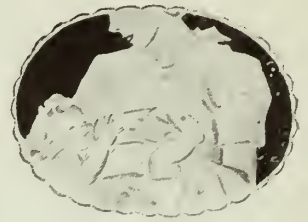


SAFE WEANING—



*The Baby Regulates
Breast Feeding*

An Obligation to Infants



*The Doctor Regulates
Bottle Feeding*

INFANTS should be weaned from the breast at eight months. The season of the year is immaterial with modern knowledge of nutrition and hygiene. Gradual weaning is desirable. It is accomplished by progressively increasing the number of bottle feedings in substitution for the breast feedings.

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<i>Feeding</i>	<i>1st Week</i>	<i>2nd Week</i>	<i>3rd Week</i>	<i>4th Week</i>
6:00 A.M.	Breast	Breast	Breast	Bottle
10:00 A.M.	Breast	Breast	Bottle	Bottle
2:00 P.M.	Breast	Bottle	Bottle	Bottle
6:00 P.M.	Bottle	Bottle	Bottle	Bottle

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DIARRHEA

"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

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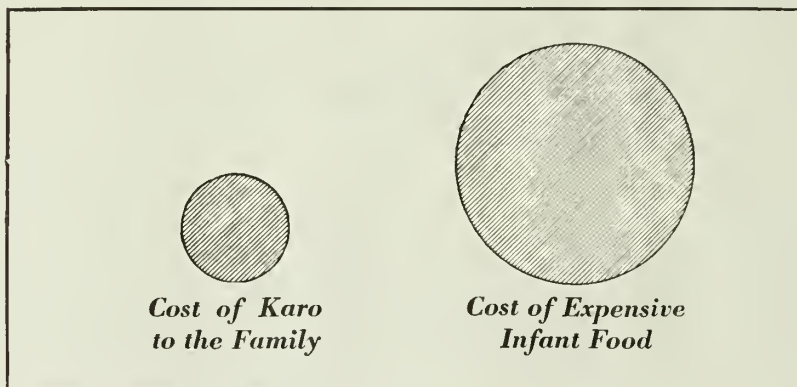
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ANY prescribed food which abundantly fulfills the baby's needs—and is available at low cost—is a boon to the mother, a blessing to the father. And the baby thrives! Karo Syrup is an effective carbohydrate. It is well-tolerated, practically non-fermentable, quickly utilized. The low price of Karo is based on its cost — not on its high value as an ideal infant food.



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Nutritional Anemia in Infants

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Their effects may be moderated by the administration of Karo before and after operation

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KARO enriches the glycogen reserves thereby helping to prevent surgical acidosis, decrease post-anesthetic vomiting, stimulate the strained heart and combat shock.



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Intake	Outgo
Drinking Water (600 cc.)	Urine (800 cc.)
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Solid Food (700 cc.)	Lungs (600 cc.)
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Research, Constant Research
continues to improve the quality of Mead's
Brewers Yeast* in the following respects,
without increased cost to the patient:

1. Vitamin B potency raised to not less than 25 International units per gram.
2. Bottles now packed in light-proof cartons, for better protection.
3. Improved bacteriologic control in harvesting and packing.
4. **And NOW, since August 1, 1936, all bottles are packed in vacuum. This practically eliminates oxidation. Mead's Yeast stays fresh longer, as you can tell by its improved odor and flavor!**

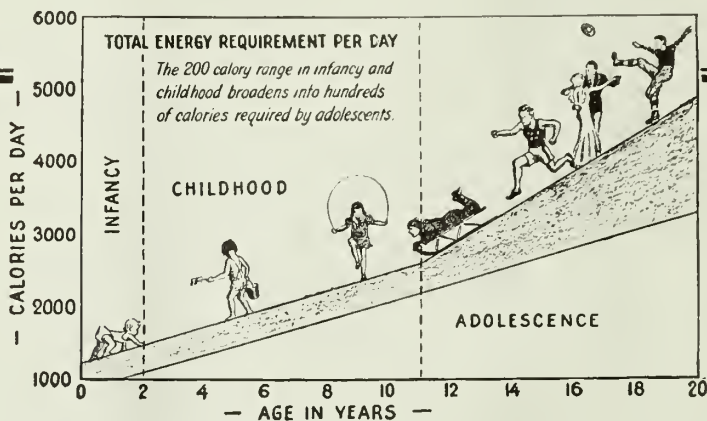
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Indispensable to Convalescents

INFECTIONOUS FEVERS deplete vitality. It is an exhaustion comparable to fasting. Convalescents show a low metabolism for several weeks following the disappearance of the fever. The low metabolism is the consequence of generalized cellular damages.

When the infection clears, activity is curbed and rest periods instituted. The patient is ready to gain. The problem is to bring about sufficient intake of food. The initial diet consists of small portions of each food prescribed and the amounts are gradually increased.

The high caloric diet is indispensable. It is made possible by reinforcing foods and fluids with Karo. Every article of the diet can be enriched with calories. A tablespoon of Karo provides 60 calories.

Karo is relished added to milk, fruit and fruit juices, vegetables and vegetable waters, cereals, breads and desserts. Karo consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor), not readily fermentable, rapidly absorbed and effectively utilized.

For further information, write CORN PRODUCTS SALES COMPANY, 17 Battery Place, New York, N. Y.



★ Infant feeding practice is primarily the concern of the physician, therefore, Karo for infant feeding is advertised to the Medical Profession exclusively.

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EXCESSIVE ACID FORMATION		EXCESSIVE LOSS OF ACIDS	
<i>Acid</i>	<i>Disturbance</i>		
Aceto-acetic	Starvation	CO ₂	Hyperventilation
B-hydroxybutyric	Cyclic vomiting		Tetany
	Diabetes		Cerebral lesions (respiratory center)
	Ketogenic diet		Hysteria
Lactic	Asphyxia	HCl	Excessive crying
	Intestinal intoxication		Vomiting
	Respiratory failure		Pyloric stenosis
	Shock		Intestinal obstruction
	Burns	EXCESSIVE INTAKE OF ALKALI	
DEFECTIVE ELIMINATION		NaHCO ₃	
<i>Metabolite</i>	<i>Disease</i>		
Phosphate	Nephritis		in Pyelitis
Carbonic acid	Emphysema		in Nephritis
	Respiratory obstruction		
	Myocardial failure		
	Narcosis		

From Kugelmass' "Clinical Nutrition in Infancy and Childhood"—(Lippincott)

TREATMENT of acidosis is designed primarily to correct the underlying cause. In most types, fluids and fruit juices with Karo are forced every hour. In cases associated with ketosis (except where it is a disturbance in carbohydrate metabolism, as in diabetes mellitus) 20% dextrose is given intravenously at repeated intervals. In case of diabetes, insulin is given, by some authorities, simultaneously one unit for each gram of dextrose, until the condition is controlled.

TREATMENT of alkalosis depends upon the cause. The most common variety in children is that resulting from prolonged vomiting with loss of acid, salt and body water. No food is given by mouth except fluids with Karo, and saline injected intravenously. If alkalosis is the result of alkali administration in the presence of nephritis with poor kid-

ney excretion of salts, large amounts of fluids with Karo will favor excess base elimination. Alkalosis from excess alkali administration is alleviated by forcing fluids with Karo.

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